

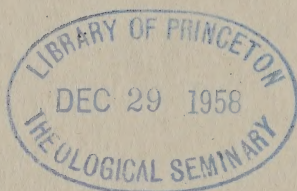
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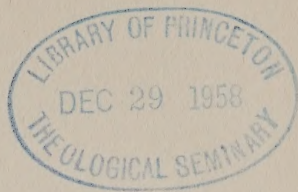




## **Man in Search of Immortality**







# MAN

## IN SEARCH OF IMMORTALITY

by Charles R. Salit<sup>✓</sup>



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## INTRODUCTION

It is said that the only "permanent" thing in the world is "change" itself. All else is in flux and motion. However true this may be, this knowledge brings us little consolation: we regard change with misgivings and fear. One often says with forebodings: I wonder what the morrow will bring? Change is synonymous with danger or even death, while stability is synonymous with peace, well-being or even life itself. All things in motion seek rest. And all things *are* in motion and there *is* no rest. The search must go on seemingly forever. In seeking rest we seek life, not death. We say a wounded animal crawls away—to die, but actually—to live. When the surface of the water is perturbed, fish descend to lower, calmer depths. When winds lash out and storms set in, birds fly for shelter. All animals seek shelter in a storm. They seek shelter—not to die—but to live.

Now, a shelter is a place where things are seemingly at rest, a place of calm, where life could continue on an even keel forever. All this may be only an illusion. The shelter very often ill protects the animal; but it is something fixed, relatively speaking, when all else seems to be in motion and is crazily whirling about. It is at best an anchorage in a storm. An animal, however, cannot stay at rest for very long. No sooner the storm has passed, no sooner the night is gone, it too departs. But it will return again or seek a new, if not a better haven.

In our daily lives we are in perpetual quest for greater security. We work, we save—often scrimp—for "rainy day," or as a protection against "hard times." We save money, accumulate

wealth in order to purchase greater security. We forego immediate security for the hope of a better one. We go to school, serve as apprentices, change jobs, or risk our savings in a gamble. Change even if seemingly favorable, contains the element of risk, gamble, chance. There is always an emotional upset: high hopes coupled with the dread of being shoved a rung lower than where we stood before. We all try to ameliorate our condition, whatever that may be, as we see it. People are lazy, shiftless, ambitious, foolish, wise, all according to the rung they occupy on the ladder of security in their community. Any other criterion carries little or no weight. No further questions are asked, provided one can establish his security. Even a successful criminal becomes a hero in the eyes of the public. Occasionally, the most honored, looked-up-to, man in the community, is a shady character, one who has achieved a high degree of security in spite of the law by which all others must abide. From a moral, ethical point of view, we may frown upon such individuals, but largely, if not exclusively so, because they may become a danger, a menace, to our own security. Our jobs, our property, our savings, may be at stake.

We all love success. We envy the successful and scorn the unsuccessful. We prefer a successful criminal to an honest failure. We all want to be successful: successful businessmen, successful doctors, writers, successful entertainers. We all want to be famous—fame as we see it. We prefer notoriety to oblivion. For success, fame, security, are synonymous, at least psychologically so. Although it need not necessarily follow, the one presupposes the other in an eternally vicious circle. It's a self-devouring process that must be fed continuously. It's an ever eluding horizon, a will-o'-the-wisp, that lures us on eternally. The poet cannot rest on his laurels, the usurer cannot sit on his money bags, the movie star must go on or sink into utter oblivion. There is no rest. The quest must go on. Occasionally, a man frankly admits that he has more money than he knows



what to do with it. Yet this very man, figuratively speaking, will not hesitate for a minute to cut the throat of his competitor or gamble the shirt off his back in the stock market in the hope of accumulating even more money. After becoming master of all Europe, Napoleon bemoaned his unhappy lot not to be able to proclaim himself a god, as Alexander the Great had done, and started on the road to his doom like a lemming into the Arctic seas.

We all seek that which is stable, permanent, fixed, eternal. We constantly are in motion, unbalance, in our quest for rest. We instinctively cling to that which is stable and strong. The drowning man may be clutching only at his proverbial straw, but the straw is floating while he is sinking. Any shelter in a storm is better than none. In the face of the "Great Change" we project life beyond the grave through the instrumentality of God. God never changes. In him we find the security which we seek. The academic consolation that we achieve immortality in our offsprings is a poor substitute for the eternal longings, yearnings for individual, personal survival after death. These longings, these yearnings, these cravings, at times carry us to paradoxical extremes. Many people, knowingly, willingly, sacrifice their lives for only a glimpse of that which men call immortality. Explorers, mountain climbers, experimenters of one sort or other, risk their lives, in the hope of leaving an indelible imprint of themselves on the minds of men yet unborn. They do these things, they will say, in the interest of mankind or science. Naturally that is so. If their exploits were not in somebody's interest, how could they hope to survive in men's minds?

This same principle, a seeming paradox, operates among the rest of us, albeit in a less dramatic fashion. We often say that a man "worked himself to death." He suffered from a "heart condition," or some other ailment, which, if he persisted in his daily "grind," might prove fatal. Yet, instead of relaxing—taking things easy—more likely than not, the man will put forth

even a greater effort to "keep up with the Joneses," amass more wealth, and in general attend to those things which men are wont to associate with security. In the face of the imminence of the "Great Change" he desperately clings to his property like the proverbial drowning man to his straw. Time and again we read in the papers how a man defended his property—very often of only a few cents—to the death. We all react in the same way, albeit with varying degrees of intensity and wisdom. If property spells security, stability, rest, then we shall cling to it instinctively, tenaciously, particularly so in the face of an imminent danger.

This urge for rest, stability, permanence, security, is so fundamental, so broad, so universal, that very often we lose sight of the forest for the trees. We say that lemmings periodically commit mass "suicide" by drowning in the Arctic seas. This seemingly would be a clear-cut contradiction to the principle of security we have discussed above. For here security—such as it might be—is unanimously abandoned without a struggle, with no possible hope for a better one. Change, seemingly here, is preferred to stability and survival.

We shall venture an opinion on this so-called mystery, by citing an hypothetical, but almost identical case with a very obvious solution. As we all know, certain birds migrate periodically (yearly) either north or south. Now, let us imagine that through some cataclysmic upheaval these land regions were completely submerged under the ocean. We would then witness, year after year, periodic mass "suicides" by drowning of these migratory birds. In anticipation of a "hard" winter, or a hot summer, these seemingly purposeless migrations would swell in volume and more and more victims would hurl themselves to their death. The phantom of security had led them to their doom. Yet, they did not migrate here to die but rather to live. And so the lemmings to this day are led on their death marches by the phantom of security to a land which no longer exists.

This vanished land, in the distant past, was a way of survival for the lemmings.

The point we wish to make from all this discussion, is, that life, man and animal (if the distinction is to be made), seeks that which is constant in a world of change. Paradoxical indeed! Hence the perpetual quest, hence this perpetual search for something one can attach himself to, cling to, while all else is in motion. Yet, there is no rest and the search must go on forever.

Like some giant flywheel, our earth has been racing around the sun for millions and millions of years without stop or rest. It races on with throttles wide open as if it was going some place. But it covers the same course repetitiously, as if it had no place to go, no destination to reach. A wonder machine, no doubt, but withal—idle. It is something like a toy, a top, which some heavenly child spins to idle his eternities away. Or, to beg the question, may not its immediate purpose be of rearing, of bringing us up? A thankless and, perhaps, a hopeless job, to be sure, but nevertheless a job of some sort, better than aimlessly cartwheeling through space. Not that we wish to rush her, but after many millions of years at the job, would it be out of place to ask, how did our “mother” earth make out? Premature the question, no doubt, but children, as you know, are curious and impatient. After reading some of the “scientific” reports, we don’t hesitate to say—not so good. Schopenhauer and Tolstoy were so disgusted with the way things were run that they went on strike and refused to cooperate. If self-reproduction is the only aim in nature, then count me out, so said Schopenhauer. Tolstoy, having “played ball” with her at first, regretted it ever after.

The biologist says that life carries on a continuous struggle for existence. It pursues and devours the weak and the small and runs away and hides from the strong and the big. It plays an intricate game of hide and seek with no visible signs of maturity. Like children the world over, it follows certain rules



of the game, such as, survival of the species, survival of the fittest, heredity, environment, self-preservation, self-reproduction, and who knows how many more.

Now, all this may be so, but it explains little or nothing. We still fail to see why life should do any of these things? We still are at a loss to explain why life should behave in this manner? To say that a horse jumps over a fence may be a fact, but still it is no explanation why he should do this. That the earth revolves about the sun may be a fact, but certainly it is not an answer to the question, why she should do that? The fact that all life seeks to survive is remarkable enough and, no doubt, highly significant, but still it is no answer to our original question, to what purpose? To what end? People say that the purpose is to evolve, to attain self-development, to progress, to advance, to improve, or, as Aristotle would say—to attain form. If a traveler asked us if he was going in the right direction, we wouldn't be able to answer his question unless he told us what his destination was. Therefore, none of the above answers is valid. Unless we know where we are going we cannot tell whether we are progressing or not. We cannot speak of progress, or any of these things, unless we know where we are going. Our so-called progress to the atomic bomb, may actually set us back many thousands of years in the evolutionary scale, if not to our total extinction. We may be running faster than our ancestors, but unless we know where we are running, it may do more harm than good. For all we know we may be only running faster to our doom.

The word "survive" can be used either as a transitive or intransitive verb, that is, with or without an object. The biologist invariably employs it in the latter sense—without an object. And so, for the biologist at any rate, life really has no object, no purpose, other than an aimless propagation of itself. No doubt, he does this advisedly, or otherwise he would be confronted with the dilemma of supplying an object to the verb, "to sur-

vive." He then would have to ask the questions, to survive what? To survive whom? One's friends, one's relatives, one's enemies? To exceed the longevity record of the species? Would the individual then be willing and glad to give up the ghost? Would he then be reconciled with death? But the truth of the matter is that life can never be reconciled with death: we all want to live forever! And that spells immortality in any language. The object of life is to survive death, to achieve immortality. There is no other aim or goal than this. It is neither pain nor disease which we fear and seek to avoid, but rather death. Pain and disease are nothing but symptoms of death. They are nothing but warning signals of the imminence of the "Great Change." It is in the constant strivings to overcome this "Great Dread" that the seed of evolution and progress lies.

Lest one thinks that our claims are too extravagant, too presumptuous, if not impossible of fulfillment by setting up immortality as the goal of life, let him remind himself of the fact that man already claims that he has attained immortality. And no doubt, he himself has said many a time that "There is no Death," and that he is immortal, albeit in a perishable shell. All religions, since time immemorial, have said that it is so. And all men are religious. No man is without religion. In fact, religiousness is the only characteristic that differentiates man from all other animals. His so-called intelligence is no criterion at all in this matter: it is a mere by-product of his religiousness. Though the germ of religiousness may be present in all life, in man alone it assumes such proportions that it is decisive in his evolution and sets him apart from the rest of animals. Fear is a negative instinct that prompts us to escape or avoid death, while religiousness is a positive instinct to conquer death. The instinct in man to survive death is so persistent, so intense that he projects life beyond the curtain of death through the instrumentality of God. God never dies. He is the constant in the world of change. The "Great Change" has no effect on him. By

clinging to him we too shall survive. The concept of God as a constant which man approaches as a limit is the fundamental principle in man's evolution. This sets his direction, this sets the pace of his progress.

This is not a treatise on religion, science, or aesthetics, but rather a treatise on the integration of all these about a given point which we shall identify as a matrix. In this world of ours there is an infinite variety of forms, many of them in a perpetual state of flux. In this seeming chaos there exists, however, a small number of forms which differ from the rest by being highly stable and universal. They are changeless and timeless, in fact, relatively speaking, eternal, the very attributes which the theologian ascribes to God. No other forms seem to share these characteristics. This unique group consists of the primary geometric forms, the domesticated animals, and the human form itself, perhaps no more than fifteen in all. How man came to select this limited number of forms for divine worship and culture will be treated here at some length. That they are not ordinary forms may be judged from the fact that man since time immemorial has worshipped them as Gods. But what may be even more surprising, is the fact that eventually, through culture, these godforms became machines to do some physical work; in other words, they became the foundation stones of culture. It is not a mere figure of speech to say that the structural form of a civilization is made up of the shells of "dead" Gods. Around these divine constants as matrices, in a world of change, through the interplay of light stimuli, man evolved from a state of nature to one of culture.



## CHAPTER 1

### *Progress and Immortality*

Man exists in a physical body in a physical world. If he is to function at all, he must behave in a physical manner. Then why be constantly in search for another world, a world about which a few claim a partial view, while the rest of us have not even the slightest glimpse? Why grope for some mysterious realm for which we are not properly equipped to function in? Why all these spiritual exhortations? Why all these spiritual impositions, inhibitions, prohibitions, according to the dictates of the spirit in the realm of the spirit? If we are to behave in a spiritual manner, then why are we put in a physical realm in the first place? Is the fish to leave the ocean and walk on dry land? Is the mole to leave its burrow and fly through the air? What urge, what compulsion would prompt them to desert their natural habitat and venture into a new world for which they are not equipped to function in?

And yet, who has not seen fish leap clear of the waves of the ocean into the air and into the sun? And yet, they have no lungs to breathe with or wings to fly with. There is an urge, a compulsion, to desert the world one is born in for a world he seemingly has no proper vehicle to function in. There seems to be a dormant dissatisfaction in nature. The imprisoned ocean beats incessantly against its walls. There is a perpetual search for a door that opens not. There is a perpetual exodus from the known

towards the unknown. There is a perpetual urge in nature to reach the ever receding horizon—just beyond the hilltop.

If we said to a man, “you are immortal,” he hardly would register surprise or even venture a protest, or put up an argument. But, if we should inadvertently add, that what we meant was the immortality of the physical body, not only would he show surprise but alarm as to our sanity as well. And well he may. Man is mortal. That’s axiomatic. Man is born to die. His physical body is a time-honored example of perishability. It is a thing of the world where thieves steal and rust corrodes. Though the scientist may talk of the indestructibility of matter, he too will be destroyed and dissolved into dust beyond all hope of any physical survival. Man’s physical span of life is but a momentary pause in eternity—the measure of immortality.

However evidential, axiomatic, all this might be, there are instances to the contrary, too numerous, too significant, to be ignored, to be dismissed as a mere falderol. Our Western Culture was born in and of this belief in the transcendental survival of the physical body. Christ rose from the grave and ascended to heaven in his material body. And, according to a recent dogma of the Roman Catholic Church, Mary, the Mother of Christ, suffered no physical death. In our holy communion, we still partake of the physical body and blood of Christ through the miracle of transubstantiation. All sacred books cite any number of examples where the mortality of the physical body was bypassed by the miraculous intercession of the “Higher Powers.” We are told by the Holy Writ that on the Day of Judgment there will be a general, physical resurrection—and the earth and the sea will give up their dead.

Now, all this, you might say, is to be taken in a spiritual, allegorical, rather than a material sense. Very often spiritual truths are clothed in physical garments for everyone to see and appreciate.

Be that as it may, we must, however, persist in the original

version and acceptance of these ideas. Had not the door been left ajar for the survival of the physical body, our Western Culture might have never been born. We say this with some historical certainty. We know of no culture without this inducement. In Egypt the preservation of the physical body was a necessity for the proper functioning of the soul in the other world. In Greece, the soul and the body look surprisingly alike, in fact so much so, that the one can hardly be told from the other. This familiarity, instead of contempt, bred an aesthetic appreciation for each other unattained by any other culture.

Man accepts a paradox that offers him life and rejects a logic whose conclusion is death. When a person dies, his friends, his relatives, as a rule, will offer all sorts of excuses. No matter how old or how sick the deceased might have been, his death could have been prevented. He ate the wrong kind of food; he exercised too much, or too little. He did not follow advice. Or, he had the wrong doctor! He should have had a "specialist," a specialist you had recommended. Had he only listened to these things he would be alive today. No high-pressure salesman as yet has sold to us the fatal slogan that man was born only to die.

In our Western Culture, the caduceus has taken on an increasingly vital role in our lives. Lift up your eyes to the fiery serpent and you shall live! And the medical profession has kept pace with our rapidly changing world. We accord it the accolade of progressiveness without a stint. In a delicate operation, the heart is bypassed, the operation is successful and the patient lives! From time to time we are informed of some new "wonder" drug that will cure an old disease. Old, depleted tissues can be repaired, and that there is no valid reason why life could not be prolonged for a decade or so, if not indefinitely. The prolongation of life is synonymous with progress. Certain countries are identified as progressive or unprogressive according to the average longevity record they have achieved. And



yet, if we should confront any medical group and ask the point blank question, what longevity record they would set up as their ultimate aim? their answers would be evasive and indefinite. They might venture some immediate objective, but beyond that they would not go. More likely than not, they would say that longevity is not their objective, but rather the prevention and the alleviation of human suffering. But in the ultimate analysis this amounts to the same thing. In order to check pain you must eradicate the disease. And, by doing so, you are pushing life's expectancy just a bit further. Quite to the contrary to the popular quip, for the operation to be successful, the patient must live—not die. If prevention and alleviation of suffering were ends in themselves, then in most instances arsenic or the bullet would be the most effective prescription to achieve these objectives. Therefore, only to the extent the medical profession contributes effectively to the prolongation of life can it be called progressive.

In man's duality, the qualities of the spirit become the ultimate objectives for its material double. Immortality is a spiritual quality, and consequently an objective for man to strive for. Whether or not this ultimate limit can ever be attained on this earth, what matters is the direction in which man must go in order to progress. *Progress is the positive rate of change at which man advances towards the ultimate limits defined by the qualities of the spirit.*

Instantaneity and eternity are spiritual dimensions independent of the concept of time. They are related to each other as would the center (point) of a circle to its circumference. They are without beginning, without end. In the various fields of human endeavor these purely spiritual concepts have set up the ultimate limits man must strive for if he is to progress at all. They are the guiding stars along the road which man calls progress. Any deviation from this course spells stagnation, retrogression, and death. As long as man progresses, he will never

be reconciled with death. And he who strives is not past redemption.

Along the road, which man calls progress, we see the twisted, tortured pictures of man's unceasing strivings, efforts, to express the infinite, to measure the incommensurable, to limit the unlimitable. In the infinitesimal calculus a point approaches a limit without ever reaching it. "Instantaneous" (speed of light) communications with anywhere on earth, if not the moon; supersonic space ships venturing further and further into space. To conquer space you must annihilate time—the measure of the approach of death. "The moment you are born," says Voltaire, "is a step nearer to the grave." Therefore, higher and higher speeds, speeds that will approach that of light. If we asked a "space engineer" what ultimate speed did he have in mind for his ships? aside from some immediate objective, he no doubt would give us some noncommittal answer. But we know, and he knows, that there is no place of rest along the road of progress and the search must go on "forever." "Progress," so reads the slogan of one of our giant industries, "is our most important product."

Immutability, permanence, are divine attributes, the qualities of the spirit. Man translates these ultimate limits in his everyday search for security. He wants a "permanent" job, a "stable" source of income, he wants "social security." Man very often becomes so engrossed in these immediate aims that he loses sight of his ultimate objectives and progress comes to a virtual standstill. Only those few who are aware—consciously or unconsciously—of man's spiritual destiny, forge ahead, at times against great odds, while the rest of mankind follow suit like sheep, at first reluctantly, then in a mad rush, bleating progress.

The same twisted, tortured picture appears both in art and literature—to express the infinite, to measure the incommensurable, to limit the unlimitable. Since in the plastic arts man's aesthetic appreciation is so intimately confined to the form, the

artist invariably selects those that best will express the attributes of the spirit. He therefore is largely limited in his choice to the following three categories: geometric, animal (domestic), and human, for they alone of all forms in our physical universe, both in nature and culture, possess—relatively speaking of course—the properties that are those of the spirit—universality, immutability, eternity. If we should care to examine these three categories of form a bit closer, we shall invariably find that man worshipped them as Gods throughout the course of his cultural evolution. They are the foundation stones and the bricks of which man's culture is made. Noteworthy indeed is the fact that these forms, through which alone man can work material progress, are selected by divine necessity through the process of religious worship. The disc, instead of an object of worship, as among the American Indians, now becomes a wheel and is put to work as a machine. The artist is limited almost entirely to these three classes of form in his representation. Even the non-objectivist, who claims to have freed himself of the limitation of form, usually resorts to the geometric form as his sole mode of expression. The aesthetic quality in art springs from the element of recognition. Familiarity need not breed contempt. On the positive side, it is the sole basis for love and aesthetic appreciation. You cannot love a person without knowing or recognizing him.

In the world of music, we move among tonal forms, purely of physical foundation: the murmurings of the waters on the sand, the roar of the ocean waves on the rocks, the whispering of the winds in the pine—we say “pine” advisedly, for it belongs to the oldest category of trees known to man. Only those tone forms in nature have spiritual overtones that possess the divine attributes of eternity, immutability, and universality. We speak of the tone forms of the street as “noises,” largely, if not exclusively so, because of their transitory, ever changing, na-



ture. No music has ever come from these soulless, transitory tone forms. Very few tone forms in culture are of sufficient duration and universality to possess the attributes of the spirit. The overtones of the pastoral spring from the qualities of peace and repose in an eternally placid setting of nature. It is not by a mere chance that the shepherd's reed is the oldest musical instrument known to man.

Some composers, indeed, have ventured into the realms of discord, tonal dissonances, a world of strife. But these are human situations that must be resolved around some immediate objective without necessarily moving nearer to the ultimate limits defined by the qualities of the spirit. In all great music, whether by Bach, Beethoven, or Wagner, man falls back on those tone forms in nature that possess the divine attributes—eternity, universality, and immutability. The eternal flutter of the birds, in Wagner, becomes the flight of the Valkyries to Válfalla.

The highest attainment in any field of human endeavor, bears the mark of the attributes of the spirit. In literature we identify such works by the quality of immortality. These works, we say, will live as long as there is man. It is not at all unusual to speak of the author of the *Iliad* as the "divine" Homer. People might say that his name has persisted with us this long because of the beautiful poetry he wrote. To some extent this may be so, but "beauty" is rather a human than a divine quality. Beauty and immortality are not exactly boon companions. The Homeric Epics are beautiful and all that, but their immortality springs from the spiritual qualities of their heroes. They move in such intimate proximity of their Gods—the Immortals—that indeed it would be strange that their names could ever be forgotten. And may not the affinity we have for these Epics be but the affinity we all have for immortality?

The "incommensurable" in Faust, of which Goethe speaks to

Eckermann as an indispensable element in poetry, often becomes a stumbling block to the reader who attempts to reduce it to some finite measure. This attribute of the spirit, however, in the Faust story, is something like a guiding star that one must go by rather than reach for. The case is very similar to some of the Shakespearian plays, such as *King Lear*, or Nietzsche's *Zarathustra*. After reading these and similar works, we often ask, "What is he driving at?" Yet, at the same time, we must admit that it is works of this nature that are the signposts of progress in literature. There are no "immortal" works without this quality. The affinity we experience for the attributes of the spirit is the ultimate criterion in the world of art and literature.

From all this, the inference may be made that man is continuously progressing, that he is climbing an ever ascending path towards the ultimate limits defined by the attributes of the spirit. This, however, is not the case. In the first place, humanity is a pretty inert mass that must be roused to action—for better or for worse. To the average man, the idea of progress does not transcend the bread and butter stage. And, secondly, man's progress is circumscribed by the culture to which he is born. Outside of it, he does not even exist, let alone progress. And, as we all know, cultures have their day and then they are gone. When Greece died, so did the Greeks. When a culture dies, its people become stragglers, and, either revert to savagery, or, become puppets of their immediate neighbors. Art, literature, and, even language, rapidly disintegrate. But, when does culture die? A culture dies when it ceases to progress. When the ultimate limits, defined by the attributes of the spirit, are lost sight of for the immediate objectives of a mere subsistence. No culture can outlive its God. When man questions the validity, if not the existence of his God, you know then his culture is either dead or dying—rapidly.

The general excuse for all the evil that man brings upon him-

self is, "It's human nature!" It is human nature to do bad, to do evil. That, however, is not so. Man is only human—in distinction from animal—to the extent he does good, otherwise he is animal, not human. Therefore, whenever one does evil, it is animal, not human nature that it at work. Man differentiates from animal only to the extent he does good, not evil. To the extent he overcomes this animal tendency—tooth for a tooth, eye for an eye—he is human. All the sacred books are a constant exhortation to man to rise above the state of nature to one of culture. A culture is a state of man defined by the attributes of the spirit. And, there is no progress outside of culture.

Quite the contrary to the common belief, all the sacred books are more concerned with life in this world than the next. There is a one to one correspondence—as above so below. What is good for the body is also good for the soul. The good you do upon earth is also good in heaven. If man's intelligence, with which God has endowed man, if all the material resources, among which God has placed him, were devoted for the good, instead of the bad, it would be heaven on earth. If all the wealth of which man is capable of amassing was devoted for the good, instead of the bad, man would be progressing at a tremendous rate towards immortality. In doing these things, man would become more and more God-like, not alone spiritually but physically as well. If all his resources were devoted in combating the things that are harmful to the body, man could remain on this earth, in his physical body, indefinitely. Life, instead of death, would become a permanent habit. As doctors already have observed, centenarians, as a rule, die of their own volition, rather than of disease or old age. Death, like sleep, is a habit to be broken. All holy books consider death as an evil. It is punishment for not living according to the word of God. Death is the wages of sin. These books prescribe a mode of behavior by which sin can be overcome. And to the extent man overcomes



sin he overcomes physical death. Though the soul is immortal, the body is still at the lower rungs of a ladder reaching up to immortality. And progress is the rate at which man ascends this ladder. To speak of progress you must know where you are going.

## CHAPTER 2

### *Divine Necessity*

The much vaunted law of supply and demand pre-supposes the existence of a certain kind of goods with whose usefulness the prospective buyer is fully or partially familiar. For goods, with whose usefulness the customer is not familiar or accustomed to, there is little or no demand. There is no felt need or demand for goods that do not exist, that is, goods that have not been discovered or invented. Thus, there was no perceptible need or demand for a "horseless buggy" before the invention of the automobile. Even after it had proved its practicability, it was still regarded with suspicion by men and horses alike. Neither does the airplane owe its invention to any need or demand for air transportation. In fact, the early pioneers in aviation were looked upon with suspicion by their "practical" contemporaries, and made objects of scorn and ridicule. It is recorded that in the reign of Charlemagne the men who had made the first successful flight in an aerostat over the city of Lyons were put to death as sorcerers.

There may, however, be a felt need for non-existent variants of goods that do exist. Thus, Goodyear's discovery of the process of vulcanization of rubber came in answer to a felt need for greater strength and elasticity of the crude caoutchouc. Likewise the invention of a self-starter in the automobile engine was in answer to such a need. These improvements, as a rule, follow one

after another in rapid succession, often in anticipation of a need as yet not felt. Such discoveries and inventions are, however, of secondary order, producing mere variants of existing goods.

Benjamin Franklin's experiments with electricity were not conducted in answer to public pressure and clamor for a new source of motive power, but rather in answer to an inner necessity, an inner directive, entirely non-utilitarian, to investigate the phenomenon of lightning. In this epochal discovery, material necessity was not the mother, or even stepmother, to electricity. Similarly, neither military nor commercial needs played any part whatsoever in the evolution of the atomic concept.

In the field of mathematics, the objectives are even further removed and completely out of range of any apparent need of application. In fact, its higher branches extend beyond the periphery of the world of form we think and live in. It is not a mere figure of speech to say that the mathematician creates a world of his own with which the outsider can no more communicate than he could with the fictionalized inhabitants on Mars or some other planet. With only a few possible exceptions, the application of mathematics to technological problems is purely incidental. No one, therefore, can attribute the creation of a system of mathematics to any conceivable practical need or demand.

Another source of marketable goods lies in the process of adaptation, by way of invention and discovery, of non-utilitarian goods to utilitarian ends. The umbrella, as a symbol of divinity and sacred royalty, had existed for thousands of years throughout the Near and the Far East. Its origin, in all probability, goes back to the idea that no mortal shall view his God face to face: man must hide or the God must be covered. This tabooistic characteristic is apparent in the Christian baldachin, a canopy of silk cloth, that covers the eucharist when carried processionally. Yet for all its antiquity, the umbrella as a device for shedding rain does not appear before the middle of the eighteenth century!

The circle, or disc, has been with us since time immemorial. No culture, however ancient, is known to have been without it. Invariably and universally it was a liturgical variant of the Sun God. Vestiges of this practice still survive in Christian iconography: the circle placed about the head identifies a deity and the saint. Yet, not all cultures had made the discovery that the circle could be put to work as a machine. Thus the Incas, the Mayans, and the Toltecs were unfamiliar with the wheel system or the potter's disc. And, for the very lack of this discovery, their cultures were that much poorer.

Before a thing can be put to work, by way of invention and discovery, as a machine, it must undergo a long non-utilitarian, purely cultural evolution. It is during this non-utilitarian, cultural period that the element of recognition and aesthetic appreciation for the thing are evolved. Long before any air ship could be built, man, in his anthropomorphic conception of his Gods, vicariously experienced the thrill of flying through the air in imitation of the bird in its idle flight. In Christian iconography in particular, this vicarious anthropomorphism assumes a stark realism: all minor deities (angelic hierarchies) are equipped with bird's wings.

Whatever the distinction between invention and discovery, they both are processes adapting existing culturally familiar things to utilitarian ends. The discovery of America came about accidentally in the search for a shorter route to India. The electric phenomenon of the lightning was culturally known to man since the beginning of time. He neither invented nor discovered it. It was there. He was culturally aware of it. Be it from fear, awe, or wonder, he worshipped it. The device, by which Benjamin Franklin took a "sampling" of the lightning, was an invention. That by these means he could capture and hold this "sampling" of lightning for further study and observation, was a discovery. Yet this experiment neither could nor would have taken place without its purely cultural antecedents of the elec-



tric phenomenon of the lightning. Without this religio-cultural directive, inventions and discoveries—if such were possible without it—would be but a leap in the dark—coming from nowhere and leading to nowhere. This inner, divine, directive both selects and directs. Man can only put to work that which has been thus selected and directed. He himself neither selects nor directs.

When it comes to basic discoveries and inventions, the materialist, i.e., intellectual, has a somewhat naive explanation, all too simple, all too “logical.” Logic, no doubt has its place in the mechanics of man’s culture, but beyond its borders, in the wider world in which we live, it often either over-shoots or does not quite reach the mark. That two parallel lines never meet, or that the sum of the degrees in a triangle equals one hundred and eighty degrees, hold true only within certain boundaries. If we should go beyond these limits, these premises will hardly hold true. Even an abstract logic must eventually modify its premises from time to time in order to keep up with the times. At one time it was very logical to infer that nothing, heavier than air, could remain stationary in the air for any length of time. Yet, recent events have proved that it is not so. The structure cannot be more sound than its foundation.

As the scientist probes deeper and deeper into the mysteries of God’s own laboratory, he is beginning to discard more and more premises, one after another, which heretofore he held as sacrosanct. If the premises prove to be wrong, the whole system has to be thrown over-board. How God manifests Himself in matter, how He conducts His own experiment, are the facts, and no scientist, no philosopher, should exceed these premises or fall short of them to reach the truth. Logic, no doubt, is a good, mental exercise, but if we are to gain anything from these mental calisthenics, some ultimate truth ought to appear somewhere on the horizon.

The mathematical historian explains all too glibly, all too

logically, the origins of our decimal system. What could be more logical, what could be more plausible than his ten-finger count, his ten-toe count? However, we may then presume that there were also people with six fingers to the hand and six toes to the foot to give us the sexagesimal system.

One of the greatest discoveries or inventions, no doubt, is the alphabet. Without it man's cultural progress can hardly be thought of. It is generally assumed that the alphabet, like all other discoveries, originated in man's utilitarian needs, such as the necessity for identifying one's goods by some sort of markings. These markings, eventually became stereotyped as more and more people resorted to these convenient, utilitarian devices. However logical such a procedure may appear we cannot subscribe to so simple an explanation. Religio-culturally man familiarized himself with the constellations, the stars, and the planets, long before he experienced the need for directional signposts on the high seas. Through his sky religion man evolved the signs of the zodiac long before he experienced the need for marking his goods so they would not get lost in the transit. Many people try to pin-point the discovery of the alphabet and place it in a certain locale. However, all basic discoveries have universal, rather than provincial origins. Sky religion is common to all early peoples and so are the signs of the zodiac. Although Chaldea is generally accepted as the home of astrology, Dr. Hugh A. Moran<sup>1</sup> found it more profitable to conduct his research on the origins of the alphabet in China—a country that can boast a more continuous, if not more ancient, a culture than any in the Near East. "These correspondences," says Moran, "were not accidental. They were part of a vast cosmological system. . . . The slaughter of a bull at the spring equinox on altars so far separated as Ur of the Chaldees and the Valley of the Han shows common roots in a common culture. . . ." Dr. Moran's conclusion is that the alphabet originated in some vast "organizing principle," namely—religion.

Similarly, man no more invented or discovered the circle, or the disc, than he did the sun and the moon. He knew them culturally since the beginning of time. He familiarized himself with the circle, first through aniconic worship, then vicariously through representation. To mount the sacred disc on its axis was an invention, to put it to work for utilitarian (materialistic) ends, was a discovery.

The primary geometric forms, possibly seven in all, are the seven stepping stones by which man ascended from a state of nature to one of culture. He familiarized himself with these constants both in nature and culture through worship, before he could put them to work as machines. He worshipped the sun and the moon before he could discover and invent the wheel system. He worshipped the cylinder, as an identity in the manifold diversity of the tree trunks, long before he erected a post for his house or made a handle for his ax or spear. This geometric period was one of assimilation and orientation. The sky-dome—an inverted hemispherical bowl, the pyramidal residual mountain peaks, the volcanic cones, or the cone-shaped conifers, have the same light effects on the plasma cell, for their stability and character of permanence, as the stationary objects on the sensitive negative in long exposure photography. It was just through such a photoplasmic process that man's sense and feeling for form and symmetry were evolved and his course to worship and culture determined. Such light patterns, as it were, in the plasma cell, constitute, what we have preferred to call, the inner directive.

In the light of these observations we may reconstruct, with some degree of certainty, man's departure from the state of nature to one of culture. He familiarized himself with fire through religious worship long before he could put it to utilitarian ends, such as heating and cooking. Man had no more use or need for fire, either for warmth or protection than any other animal. The sacred fire burnt on the altar before it burnt

on the hearth. Vestiges of this sort of practice persisted into historical times throughout the Near and the Far East. The Parsees, the followers of Zoroaster, of present day India, still worship the fire as a symbol of deity. The mystery of fire, originally had nothing to do with heating or cooking—that discovery came much later. Only the priest (magician, medicine man) had the power and the knowledge to invoke and control this phenomenon.

Likewise the ritualistic meaning of clothing is not entirely unfamiliar to us. Aside from the actual need for warmth and custom, we wear clothes to indicate rank, authority, office, as well as social and economic status, none of which has anything to do with keeping warm. To “invest,” to put on the cloth, still means to bestow office, rank, or authority. “Investiture,” means to have the right of possession of office, the right to perform a certain function. As late as the Middle Ages, the hat was not worn for warmth or protection against the sun, but rather as a symbol of rank or nobility. The American Indian was familiar with the hat—headgear—but not in any utilitarian way, as a protection against the weather, but rather as a ritualistic symbol. The same is true of the various Negro tribes of Africa. People find it amusing to see a semi-nude African chieftain disporting a stove pipe hat which is of no more use to him than it is to a Broadway dandy. In a hunting ritual, of totemic nature, hunters disguise themselves with the skins and heads of the animals they have killed, so as to partake of their virtues or pacify their tormented and outraged spirits. These and similar instances show that man took to dress more for ritualistic and totemic purposes than for actual bodily needs.

Students of early man, like fiction writers, endow their hero with steadfastness of purpose and logical continuity. In a logical sequence he progresses systematically towards his clear-as-day goal. He hardly misses a step. In this sequence, man took from stick-and-stone wielding to fashioning tools and weapons



like the proverbial duck to water. Yet, aside from the fact that fashioning tools presupposes the ability to wield a stick, there is nothing in common between these two modes of behavior. Some animals, such as the big apes, manipulate sticks and stones without moving one step closer to the border line that separates the state of nature from one of culture. And it is not a question of intellect. If anything, man at that stage, had it less than the present-day apes. But, what these animal intellectuals do not possess, is the transcendental property of religiousness. And, without this key, no animal can unlock the gates of nature and escape. A stick remained a stick in the hands of animal, while in the hands of man it became a magic wand by virtue of his religiousness. With it the priest (a mutant form, a magician, a medicine man, or the head man) indicated the taboo, pointed to the fire, invoked divine intercession, or warded off visible and invisible enemies. Only in this way may we consider the stick the ancestor to tools and weapons.

This ritualistic symbolism of the stick is not entirely lost on us. In all great cultures high ecclesiastics and sacred royalty, if not Gods themselves, wield the stick as a symbol of divine authority. Amon-Ra, the Egyptian Sun God, is often pictured holding the "crook" in his hand. The king, garbed in his ceremonial robes, of course, must have his scepter. In the Roman Catholic Church the crosier is carried before bishops and abbots when exercising their priestly functions. The field-marshal's baton is the symbol of military rank akin to divine royalty. Among civilians, even today, the stick is a symbol of social position and economic status. A man, carrying a cane, without these qualifications, is usually considered a fake and an imposter. A man must be of standing and distinction to be worthy of the stick.

The scientist, while neglecting or ignoring man's religiousness, which alone is necessary and sufficient to distinguish him from animal, makes a great deal of such relatively trivial char-

acteristics as articulate speech. In life and death situations, in extreme pain, or when taken unawares, man forgets all about his articulate speech and screams like an animal. "Speech," observed Voltaire most felicitously, "was given man to disguise his thoughts." While carrying on his small talk and gibberish about some such thing as the food he has eaten or the weather, his mind is either sluggishly dormant or is behaving in a most irrational, unpredictable, and often, undignified manner.

To explain the evolution of articulate speech on the basis of material necessity, is to stretch the survival theory beyond its limits. There is no such need in nature, felt or otherwise implied. Within the bounds of their own specific natures, animals convey their needs and pleasures to each other with all the necessary nuances a given urgency may demand. In giving warnings of imminent danger, or giving vent to one's feelings of extreme joy, inarticulate sounds are much more effective than articulate speech.

Even in culture, speech is more of a convenience, a sign of sophistication, than an absolute necessity. In certain primitive communities, ideas are conveyed more by gesture and monosyllabic grunts than by elocution. Among certain ethnic groups of today, ideas cannot be adequately expressed unless accompanied by appropriate facial expressions and gestures. The African bushman, it is said, is so dependent upon this rudimentary mode of communication, that he cannot converse in the dark.

If our religious hypothesis is correct, man experienced certain transcendental needs which he could not make known by the usual cries or sounds. He felt the need to express awe rather than fear, taboo rather than warning, exaltation rather than joy. These sublimations seek expression through material or physical counterparts or agencies by a series of transpositions, substitutions, circumlocutions, and replacements of all sorts. The word is substituted for the deed, bread for flesh, wine for

blood. Upon his accession, the Pope takes on another name, indicative of his transformed personality. And so does the novice upon entering a monastic order. A king, upon his accession, usually does the same. In ancient Egypt this transformation becomes complete: the pharaoh upon taking the name of Horus or Amon-Ra becomes the Sun God himself whom he in turn worships. To indicate the divine presence, the priest grovels on the ground, his voice breaks; he chants or talks in a different register. Even in the so-called reformed churches, where ritual is reduced to a minimum, the priestly voice has retained the quality of awe and solemnity. To invoke, or to ward off, the mystery, the priest must know the name. He alone may utter it. For to know the name is to control it. As for the rest of the parishioners, it's a taboo. Or, as among the ancient Hebrews, not even the priest may pronounce the name of Yahveh. For He is the unpronounceable one, the unmentionable one. Hence, circumlocutions, substitutions, borrowing or inventing the name of Elohim for Yahveh. When the priest addresses the deity, he is not addressing the congregation. He may intercede for them, but he is not "talking" to them—for that, as we have pointed out, no speech is necessary. In nearly all cultures, the priest-God language is not that of the congregation. In reality, it is an archaic or borrowed language, such as, Sanskrit, Latin, or old Slavonic. But in any case, it is a language unintelligible, for the most part, to the parishioners. Speech, like early writing, was a sacred as well as secret practice known only by few—the priestly initiates. And, indeed, like writing, speech ultimately became popular and common, if not universal.

The creative force, throughout man's cultural evolution, has been his religiousness, rather than his intellect. The priest came before there was a professor. Intellect, as compared with religiousness, is but a fledgling that as yet cannot fly high nor far. Art, literature, and philosophy can achieve their culmination only in the realms of religious spirituality. At the conclusion

of his Critique of Pure Reason, Immanuel Kant is still perplexed as he stands in awe and wonder at the starry heavens above him and the moral law within him. Mere intellect as yet cannot reach them. At the present stage of man's evolution, the intellect is still too inadequate, too young, too untried to be the sole guide of mankind. In the past all civilizations came to grief when they abandoned all too soon and all too readily their religio-cultural antecedents and directives for the immature wisdom of the intellect.



## CHAPTER 3

### *Plasma Photography*

Now that we all are talking about three dimensional movies, the following anecdote may be apropos.

"Please remove your hat," a man says to one sitting in front of him, "I can't see the picture."

"I'm sorry, but I can't—I'm in the picture."

We would say, one of these men was real, the other—only a simulation. In reality, they both are simulations, they both are light projections through patterned negatives. If the two projections had been properly synchronized, there is no valid reason why they should not have continued their discussion or argument to the annoyance of their neighbors. If the light was shut off, the pictures would disappear. Both men would disappear—projections always do when light is turned off. Both, the "real" man and the "illusion" would vanish. But, you might say, the "real" man eventually comes out of the "movie," for every one to see, while the other—the "illusion"—does not. But that's not fair: you cannot turn the light on one and not on the other and say, this one is "real," the other—a fake. You might say, however, in the case of the "real" man, though I cannot see him, I still can feel and touch him, whereas with the "illusion" in the "movie," you cannot do that. Now, that is purely an advantage of a three-dimensional screen over a two-dimensional one, purely a matter of the medium on which the

picture is projected. For example, we can project the picture of a man on a stone in the round, a projection you can touch and feel, without necessarily seeing it. But, you might say, you still can tell the statue from the "real" man. Perhaps so. But the fact remains that the man who posed for Myron's "Discobolus," is as much of a simulation as the statue itself: the model simulates an athlete in the act of throwing a disc. The "reality"—the athlete—would have released the disc in a fraction of a second, whereas his simulation, i.e., the model, is frozen with the disc in his hand without ever letting it go. His posture implies action that never comes off. The statue is a posture, frozen in stone, of a man simulating reality.

The blind man gropes about by the aid of touch. He has no light projections to guide him. He must actually come into bodily contact with the space boundaries of the world he lives in. When he comes to a stone wall he knows through the sense of touch that he cannot walk through it: he must either turn back or find an opening in the wall. Light does the same; it either turns back or finds an opening through which it can pass. But a man with eyesight can explore the stone wall without actually coming into bodily contact with it by projecting it on the space boundaries as a screen. The world about us has reality only within us, not outside of us. That we can see it objectively at all as something existing outside of us in space, is only possible by passing a light ray through the patterned negatives within us and projecting it on a screen.

The eye is a specialized organ for seeing, just as our digestive system is for eating. The chemistry—the actual process of assimilation—however, does not take place in these organs as such, but rather in the plasma cell of the whole body or organism. These specialized organs in fact may be bypassed and assimilation induced directly in the plasma cell, as for example by the injection of food into the blood stream. In other words, the plasma cell is still capable of the vital functions of the whole

body. Similarly, the plasma cell possesses the potential of "sight." The Gestalt psychologist claims that if you bring one half of a circle into the field of vision and the other half in the blind spot of the eye, you still can see the whole circle, in other words, the circle will complete itself. We often say, we can visualize certain things without actually seeing them. We can call forth certain persons, certain forms, in our "mind's eyes" at will. At times, only a glimpse is necessary to complete the whole picture. Even the blind man, as we say, has a "second sight."

As any photographer can tell you, unless the film is inclosed in the camera, no negative can be made. Certain animals, such as the protozoa, especially those of one single cell, have "evolved" very little, or not at all, since the "Dawn of Creation." They all have the "film," i.e., plasma cell, and, with only such exceptions as the rod-shaped microbes, they all have access to light. And yet, as we say, they have not "evolved" at all. Through some defect in the "film"—the plasma cell—they are incapable of building complex bodies by cell division or some other process. In other words, they have not learned how to build "dark chambers," where alone evolution can take place. Only those species have "evolved" who were capable of building for themselves dark chambers.

Patterned light, however, must be admitted in this dark chamber to make a negative imprint on the film. If light is not admitted into the chamber, no picture is made, and no "evolution" takes place. Those species that have been excluded wholly or in part from light, have disappeared, remained static, or retrogressed. Thus, the sandworm, being excluded from light, has remained practically unchanged for some 500 million years or more. Similarly the fish, buried in the ocean, have remained remarkably the same. Certain fish by living in absolute darkness have gone totally blind, thus nullifying the work of aeons. And so certain microbes have existed in the same form almost

since the beginning of life. By adapting to a changing environment, many animals have retrogressed. Thus, certain burrowing animals, such as the mole, have partially lost their eyesight which they had acquired so laboriously over millions of years.

All through this discussion, we took the object for granted. The "sitter" was always there. If any difficulties were there, these were matters of light, film, or the camera. In this, however, we have taken too great liberties and too much for granted. For after all, it is the "sitter" we want, not the light, not the camera, not the film, but the picture. Nothing else counts. Light, camera, film, are only facilitating agencies, and not the subject matter itself.

We all, in some degree or other, are familiar with long exposure photography. We can move "safely" to and fro in front of the camera without being detected on the film. Only those objects that are "stationary" and "fixed" will appear in the picture. This holds also true of the so-called instantaneous photography. A picture that records a running horse may not record a discharged bullet. The same principle applies to plasma photography. Only here, the time is not measured in seconds or minutes, but rather in millions of years. Immediate, changing environment, seemingly has little or no effect on the film of life, but only constants—all things being relative, of course. These constants are primarily geometric, such as the sun disc, the hemispherical sky-dome, the cone-shaped conifers, the cylindricity of the tree trunks, and the pyramidal mountain peaks. They are changeless, timeless, and, in so far as the evolution of life is concerned—universal. The light stimuli proceeding from these constant forms upon the plasma film have seemingly gone on forever. Aside from these characteristics, these constants possess the quality of symmetry which, though not unique, is necessary and significant in man's evolution. The pattern, the outward shape and structure, of man's culture is geometric. Man's sense of symmetry, sense of proportion, the feeling for



form, all stem from his plasmic negatives of the geometric form.

Everything being equal, this plasma photography of the geometric forms in nature is general and fundamental to the evolution of all life. When we speak of time exposure in photography, we usually have the object in mind. In reality, it is the exposure of the film to light in the camera obscura that is involved and all important. The reason why other animals did not follow a course of evolution similar to that of man, is because man is a link in an evolutionary chain that is older and longer than similar chains in the animal world. Man is a link in the main evolutionary chain, whereas the animal, for the lack of time exposure to light, is a deviation, an offshoot, a laggard, a dross, from this main trunk. Man alone, of all animals, seems to possess the key that can unlock the gate that separates the state of nature from one of culture.

The constant forms in nature discussed above play a decisive role in the evolution of the species and the rise of new ones. In places where the number of these constants is greatly reduced, or, where the dynamic influences of these constants are at a low ebb, there the old species come to a standstill and new ones do not appear. Thus, in the Arctic and the Antarctic where seasonal changes and the rhythmic alternations between day and night are greatly reduced and slowed down, no new species seem to appear. Archaic species, on the other hand, here survive indefinitely. This latter fact shows that evolution has been brought to a virtual standstill. The same is true of the great plains and deserts, such as the Pampas and the Sahara, and the equatorial regions. Here the total or partial absence of trees, mountains, and seasonal changes, have similarly affected the rise and evolution of species. Where no insurmountable barriers exist, both infiltration and intercourse make these facts however difficult of observation. But where such barriers do exist, as for instance the sea-locked continent of Australia, ample evidence is at hand to verify our theory. For here primitive

mammals still abound and higher forms are almost completely absent.<sup>1</sup>

As we project man's habitat or culture on the space boundaries of time as a screen, we observe that the domestic animals and man himself, aside from the absolute, i.e., geometric, constants, appear persistently into the picture. Of other forms, transitory, provincial, and more or less amorphous, there is little or no trace. The picture of man's culture clearly shows that the materials of which it is built consist primarily if not exclusively so of the three categories of constants we have discussed or alluded to above. Instead of setting down some arbitrary, academic definition of a constant, we shall invariably refer to this plasmic picture and say, that which you see in the picture are constants, all else in the habitat of man is transitory, provincial, or amorphous. It follows from this purely empirical observation, that universality is at least one of the properties of a constant that distinguishes it from all other forms. All geometric forms possess this property. God, whom we all regard as *the* constant, possesses this property. Man, as they say, being the measure of all things, is our point of reference in these matters. A thing is long or short, big or small, universal or provincial, all according to this criterion. Beyond this purely subjective point of reference we do not wish to go. From this point of view it follows that of all animal forms visible to the human eye the domesticated animals alone can qualify in our cultural picture as constants. We have an aesthetic appreciation of, a sense of recognition for, these universal animal forms. The artist invariably selects the domesticated animal for his canvas, rather than such wild life forms as the rhinoceros or the bird-of-paradise. The cave-mural artist shows a similar aesthetic preference for the ancestors of our domesticated animals. We recognize these constants as one would an old friend, a friend whom, so scientists say, we have known for millions of years.

It follows from our plasma theory that only constants can

produce heredity, whereas immediate, changing, environment—only acquired characteristics. It is said that an infant begins to recognize its mother when it is only a few weeks old. It would be sheer nonsense to say that the stimuli produced by the mother are of sufficient duration to evoke such a response without some biological antecedents. As a matter of fact, the necessary biological mechanism for the act of recognition was evolved in the course of millions of years and the mother acts only as a catalytic agent that sets the body apparatus into motion. Similarly the fact that long married couples begin to look embarrassingly more and more alike, or the fact that emigrants to a different geographical region begin to change their physiognomy and cranial formation even within the first generation, are all indications of some biological setup of the same order. In these illustrations none of the stimuli in themselves are of sufficient intensity or duration to produce these reactions. They are nothing but suitable catalysts that put an old machine into operation. It also stands to reason that this biological mechanism was evolved over a period of millions of years in response to those stimuli that have changed the least and have persisted the longest.

On a chicken farm where electric light was used to stimulate the laying of eggs, a chicken laid an egg in the form of a light bulb. A devout Filipino mother, during her pregnancy, consistently prayed before a picture of Christ's bleeding heart. She gave birth to a child with his heart lying on the outside. Albeit, these are bizarre, fantastic, incidents, or, as we might more properly call, accidents, the fact however remains that there must be biological antecedents to these phenomena.

Archetypal, patterned negatives on the film of the plasma cell constitute, what we might call, the "inner directive." To this blueprint pattern, so to speak, the body organism responds as if in anticipation of a need as yet unborn and unperceived by the physical eye. And when the time is ripe, when the event is

born, precipitated, as it were, by some catalytic agent, man immediately acts as if by some inexorable, but extemporaneous, logic. By virtue of the photoplasmic mechanism within him, his course to worship and culture was predetermined. He could not act otherwise. "All our organs," says Henri Berr in his foreword to Jacques de Morgan's "Prehistoric Man,"<sup>2</sup> "imply some sort of knowledge of the objective and material exterior world."



## CHAPTER 4

### *Man's Duality in the World of Form*

The body and the soul are often considered as more or less independent entities. The soul is supposed to be perpetually at odds with the material body. The latter is usually compared to a prison cell which the former is only too glad to break at the first knell of death. The soul is usually associated with the good, the flesh with the bad. "The spirit is willing—to do good—but the flesh is weak."

Leaving aside the intricate, and often redundant question of Free Will, it is generally accepted that man acts by some necessity or other. It is also generally accepted that in material things he is compelled to action by material necessity and in spiritual things by spiritual necessity. These suppositions, in turn, must necessarily rest upon the fundamental premises that man is part material, part spiritual, if not made up entirely of two distinct entities, the one spiritual, the other material. According to this latter view each entity may have an existence partly or wholly independent of the other. The material entity dies and disintegrates, the spiritual lives on forever.

The ". . . and-the-twain-shall-never-meet" dualist plants his man on a very inclement, inhospitable earth and condemns him to an incompetent co-existence. The spirit can never be at home upon the earth and may depart from it upon short notice, or, what is even worse, without any notice at all. At times it seems

the spirit deserts his material partner without a twinge of conscience, without remorse, without any regard whatsoever for the terms of the contract: to manage some sort of co-existence with his material double at least for the “normal” and “natural” span of its life. The infant is left stranded without his parents, the family without its head—its material support. The mother is torn from her child, the child from his mother. The body, in utter despair often cries out against such seeming injustice, if not treachery. To all intents and purposes the spirit obeys no moral law. No contract with his material partner is sacred or valid to the spirit. He breaks it whenever it serves him best. It is a one-sided decision without appeal. The body has no chance at all. The spirit can live without the body, but not the body without the spirit. This makes the case the more poignant. In the face of this disparity between the body and the spirit, the spirit takes upon himself the moral obligation not to take advantage of his weaker partner.

What lesson are we then to learn from all this shady co-existence? What lesson are we then to learn from this very, very unpredictable partner of ours—the spirit? He does not seem to conform to any standard of behavior and his moods, his impulses are so unpredictable. He may leave us in the lurch, at times, when we need him most.

The “. . . and-the-twain-shall-never-meet” dualist has some sort of answer to these so urgent questions, though, to our mind, quite unsatisfactory. The body, he will say, must learn, sooner or later, eventually, that it is “no good” to start with and the sooner it learns this—the hard way if necessary—the better. It must learn not to pile up treasures that thieves steal and rust corrodes. Instead, it must learn to store up treasures in heaven. Instead of quenching its thirst upon earth, it should partake of the waters of everlasting life, so it won’t have to return, time after time, to the well. It must learn to despise this perishable, transitory, earth existence, and extol life ever-lasting.

If we follow this trend of thought of the dualist, we inevitably shall, in fact must, reach the following conclusion: The spirit is housed in this material body of ours and placed upon the earth in order that he may teach his material double the utter futility of our earthly existence. Once we have learned this lesson, once we have attained this realization, the spirit has completed his mission upon earth, and we—our pilgrimage in the vale of tears and sorrow.

This, as we can see, is a poor way of teaching; a bad lesson, as any teacher will tell you. It's a lesson by negation and destruction. A good teacher builds up the child—not tears him down. You don't jubilate over a victory you have won by proving to the child that he is no good, but rather you take a great deal of pride and joy in showing to him the good he is capable of. Surely, the Creator did not put us upon this earth in order to convince us—preferably the hard way—how poor a place He has picked out for us, but rather to teach us the good that man is capable of achieving upon the earth. Like a parent teaching his child how to walk, He is teaching us how to walk the road that leads to immortality. The spirit is our guide, our mentor, our teacher. There is hope, there is a goal ahead of us upon this earth that God has set before us. And surely, God will not lead us astray. He already has taught man some very concrete lessons . . . Love your neighbor . . . love your enemies . . . do good unto those who harm you . . . he who saves his life . . . love . . . faith . . . hope . . . To the extent man follows these teachings he is saved, not only in heaven, but upon earth, and, to the extent he deviates from these teachings he is lost. The reward or punishment follows inexorably. The mother grieves over the death of her child, the child over the death of his mother, all because of the lethargy, the lackadaisicalness of the animal sleep from which God has roused man by raising him from a state of nature to one of culture. Life ever-lasting, life immortal, is not a ready-made package that is handed to every

lazy man after his physical death, but rather it is the everlasting aim, the ever-lasting goal that man must strive for, work for to gain his salvation. The Grace, upon which the dualist is so apt to fall back, does not give man a free union card to heaven.

Duality manifests itself in man on a grandiose scale, often in a dramatic fashion: God and the Devil, Life and Death, Good and Bad, Positive and Negative, White and Black. The villain is all bad, the hero is all good. You must choose between God and the Devil, or, between Religion and Science. Between black and white, however, there are gradations of color, in fact, the whole spectrum lies between these two extremes. We must assimilate the colors as we progress towards the light. Though we may walk towards the light the shadows will still be with us.

The historian refers to the Mediaeval Ages as the Dark Ages. Yet it is only too apparent that this opprobrium can be applied only to the material side of life at that time. Spiritually our Christian culture was approaching its zenith. Similarly the historian speaks of the Prussian and other German states during the Napoleonic wars as being "crushed" and "annihilated." But we also know that spiritually it was the German Golden Age. It was the age of Goethe, Beethoven, and Kant, one of the most brilliant periods in the annals of man.

History records material heights and spiritual depths side by side, especially towards the end of a culture. It would almost seem that these two phases of man's activity are always askew, always in unbalance. The decline of Rome was marked by a spiritual bankruptcy and the popular cry for "bread and circuses." It was marked by the crush and stampede towards the "megalopolis," the big city. It was a time when the fame of the gladiator exceeded that of the senator. In society the buffoon was more acceptable than the philosopher.

But Rome "fell," as the historian would put it. Her spiritual bankruptcy was soon followed by a material "crash." Con-



versely, Germany's Golden Age was followed almost immediately by an unprecedented material prosperity. When man's spiritual life is at a low ebb, material decline is inevitable. And on the other hand, when spirituality is on the ascendent, material progress can be expected. It is not entirely without significance that, while our present spiritual leaders declare that we have reached or are rapidly approaching a spiritual nadir, Oswald Spengler produced his monumental work entitled, "The Decline of the West."

When materialism is at its height and a civilization is approaching its decline, more and more people question the validity and even the existence of God. They declare religion to be a myth and nothing but a body of superstitions, all springing from fear and ignorance. It is regarded as a police arm of the ruling classes to keep the ignorant masses in subjection. Then there is another inescapable observation. When intellectualism increases, religion decreases. At the sophisticated phase of intellectualism towards the close of a culture, religion and spirituality in general are indeed at a low ebb. May not the inference be made that science is so high because religion is so low?

If one was to investigate the structure of a culture, even from a purely materialistic point of view, one would discover that its basic elements have religious origins. These elements are a small group of constants which man, in the course of his evolution, has by divine necessity singled out for religious worship. They consist exclusively of some seven simple geometric forms, about the same number of domestic animals, and the human form. It is through worship of these forms that man rose from a state of nature to one of culture. Cultures have evolved through and about these forms as matrices. Thus, Greek culture evolved about the human form as a matrix and our Western culture about the cross—a transverse combination of two cylinders or prisms.

How much more significant is man's religious property than

his intellectual faculties, if such a separation can be made, may be gauged from the following observations. While we may concede that man invented the wheel system by virtue of material necessity and his much-heralded intelligence, it was by virtue of his religious affinity to the sun disc that he discovered the much more basic principle of the circle. Similarly man may have invented the pyramidal and conical roofs for his house or garage, but the original and fundamental concepts of the pyramid and the cone he evolved by a divine necessity and through his religious affinity to the mountain peaks, the awe-inspiring volcanoes, and the evergreens of the class *coniferae*. In the same way man invented the column as a prop for his house and the piston-rod for the machine, while the idea of the cylinder he evolved in the course of his worship of the identity in the manifold diversity of the tree trunks. And, in a like fashion, other creative concepts, such as the hemisphere, the sphere, the prism, were all evolved long before man conceived them as machines to satisfy his material wants. What monuments born of a material necessity can compare in number, quality, and sureness of aim, with the menhirs, the dolmens, and the cromlechs, the pyramids, the temples, and the cathedrals that man raised to satisfy some other kind of need? These monuments possess a quality of eternity that we are wont to associate with deity, a quality that is rare, if not entirely lacking, in man's other efforts.

The unbiased investigator can observe at first hand that the complex structure of a culture consists primarily of godforms. Every form element in our civilization has been and still may be, worshipped as a God of cultural magnitude. Thus the cultural habitat in which both the materialist and the dualist are called to function is of religious origin. Therefore, to say that materialism is born of the light of reason is wide of the mark. For indeed, fundamentally both reason and materialism owe their very existence to man's religiousness.

Plato speaks of a world of "ideas," as if it were some mysterious realm set apart from our sensual world of existence. Just how these two worlds operate side by side is as mysterious as his realms of "ideas." The meaning of the Greek word "idea" is "form." In this duality the "idea" or "form" alone possesses the quality of reality of which the sensual perception is only the "shadow." This "shadow" must necessarily be transitory, for many of these "shadows" have disappeared from the earth, like the horned Triceratops and the plated Stegosaurus, or the cyperus papyrus along the Nile Valley. The seeming duality here breaks down and the "idea" or "form" alone persists, if it exists at all, without its material counterpart. Plato employs his "idea" indiscriminately. It is obvious that the circle and the pebble on the beach do not belong to the same category of ideas. The pebble has neither permanence nor universality, the circle has both. Neither can we place the chair and the cylinder in the same category. The one is complex, variable, and transitory, the other is simple and static, and both natural and cultural. The difference between their qualities of reality is so tremendous that they may not belong even to the same world of ideas.

In accordance with our definition of form as a matrix, we would identify the cylinder alone as an "idea" in Plato's sense, but not the chair. At best, we would define the chair as a cultural "idea" whose reality is qualified by its infancy. Realities do not spring up full-blown like Pallas Athena from the head of Zeus. They too, like us, have a painful birth and a slow and wasteful adolescence. Realities, in the Platonic sense, are subjective. In other words, they evolve as much within us as we evolve about and through them. For a form to have reality it must be static, or at least highly stabilized. The limited group of forms, namely, geometric, animal, and human, cited above, are evidently of this type. In his worship of these godforms, man persistently has acclaimed them to be universal, timeless, and changeless. And indeed it would be difficult to prove otherwise.

Can we think of the time the sphere was not what it now is? And the bodily forms of our domesticated animals and man himself have become established in our minds as constants. Yet, as in the case of Plato, we must necessarily differentiate between the "idea" and the "shadow." Only the "idea" possesses the reality and the qualities of eternity which the worshipper ascribes to the godforms we speak of. It is only the matrix (Plato's "idea") that possesses these properties. All our religious or aesthetic feelings spring from this "idea."

We may define our matrix, as well as Plato's "idea," as a limit which the form approaches in its cultural evolution. We experience an aesthetic appreciation of a column in its deviation from or its approach to an imaginary cylinder. Yet this imaginary cylinder alone possesses reality. The column assumes a shadow of reality only to the extent it resembles this "imaginary" cylinder. But, should the column assume the shape of the perfect cylinder, our aesthetic feelings would cease and become as static as the "idea" itself. Our religious and aesthetic feelings, which are synonymous, become dynamic and active only in so far as a form approaches or deviates from the limit ("idea"). In this approach or this deviation a point is reached which is neither too far from nor too near to the matrix ("idea"), but just right. That particular position may be defined as a point at which the worshipper, or the artist, experiences the maximum satisfaction or pleasure.

That there is a limited number of constants which make up our cultural elements, is for anyone to see and observe at first hand. That man selected them by a process we termed "divine necessity" may, however, sound more like an excuse than an explanation. Such metaphysical phrases mystify more than they reveal. Indeed, if such a creative process exists at all, it must be demonstrable on a physical plane on which it operates. In our discussion above, we made the observation that all life seeks life and avoids death. In fact, we went so far as to set im-



mortality as the goal in evolution. All life seeks that which is constant in a world of change. By attaching itself to that which is at rest, it seeks to survive. The logical culmination of change is death. All life seeks shelter in a storm. The idea of shelter—that which is relatively stable—is fundamental to all life.

All life has been exposed to the light stimuli of constants such as the sun disc, the hemispherical sky-dome, the conic volcano, the symmetry of the residual mountain, the cylindrical identity in the manifold diversity of the tree trunk longer than to the other more transitory forms in nature. As in long exposure photography, only the constant, stationary forms are registered on the sensitive negative, the plasma cell, while the more transitory forms seemingly have little or no effect. These plasmic patterns manifest themselves as a feeling, a sense of form, symmetry, and proportion. They guided man in the selection of the godforms about which he evolved as a cultured being. It is this inner directive proceeding from archetypal negatives or plasmic light-patterns that we have termed "divine necessity."

Since our present sphere of evolution is in the world of form, the question may be raised as to what our next stage of evolution might be? In what kind of world will we find ourselves? Will it be a world in which we shall not be bound and limited by static forms? Any ideas of such a state of evolution, of course, are necessarily hypothetical. There are however certain indications that man is already sensing the existence of a "formless" world. Some of the great mathematicians, such as Abel, Gauss, and Riemann, have conceived worlds of "ideas" that are independent of our world of form. They "created," we might say, their own worlds of thought in which they alone may function. There also is a definite tendency among the so-called modernistic artists to free themselves from the limitations of form. The results may not always be felicitous, but the tendency is definitely in this direction. In the so-called non-objective art animal and human forms no longer appear; the geometric forms

still persist, but only in a two-dimensional space. A pronounced characteristic in modern art is the disintegration of form. Very often the form has disintegrated beyond all recognition. On the other hand, colors and their combinations are seemingly on the increase. Though we may not be able to visualize them, there may be many other worlds without form as we know it.

## CHAPTER 5

### *Utilitarianism*

In dealing with man as a dual entity, one gets into all sorts of confusing and often conflicting situations. In this dual kingdom of man, the same thing is very often characterized by diametrically opposite attributes. To improve one's material welfare is said to be utilitarian, whereas the caring for one's soul is non-utilitarian. The former is usually identified with selfishness, the latter with unselfishness. To desert one's family out of material considerations is regarded as an act of selfishness and cowardice, but to do so for one's spiritual welfare is acclaimed as unselfishness and courage. In Bunyan's *Pilgrim's Progress*, Pilgrim stops his ears so as not to hear the weepings and cryings of his wife and children as he runs away to seek salvation for his own soul. Christ himself recommends such a behavior to those who want to follow him.

All this may be only symbolical and allegorical, but the lesson is clear: that which is a crime in one kingdom may be virtue in the other kingdom. Calvin, for the appeasement of his conscience and the salvation of his own soul, sent many people to torture and their death. There are examples without end to show that man seemingly acts by a dual standard. The theologian and the philosopher instead of bridging have actually emphasized the hiatus that separates the two worlds in which man is born to function.

There is, however, a school of philosophy, generally identified as utilitarianism, which, with only some minor exceptions, proposes to explain man and his behavior on a purely materialistic basis. Although many critics have pronounced this system unsatisfactory and inadequate, it has more popular adherents than any other philosophical system. It would seem that by common consensus of opinion man is selfish and utilitarian by nature, philosophical system or no philosophical system. In the face of such a "popular demand" a system of utilitarian philosophy would have to be created or invented if there were none. Therefore, if any fault is to be found with the utilitarian school of thought it is to be looked for in the inadequacies of its structure rather than in its basic principles.

According to utilitarian philosophy man is motivated by pain and pleasure. Man avoids pain and seeks pleasure. Since this standard for man's behavior in no way distinguishes him from other life forms, this principle was extended to and projected on an ethical, a higher plane. Man now, as a social, ethical being, was supposed to avoid that which caused pain to the majority, the greater number, and seek that which gave pleasure to his fellow man. According to this principle of ethics, man might avoid certain things even though they might give pleasure to him, and conversely, he would seek certain things though they might cause pain to himself, all because of the greater good for the greater number.

This "greater good for the greater number" phrase has become a standard cliché in the game of words. In a system of abstract logic, it matters little that in reality this "greater good for the greater number" is actually determined by a minority—and a very small one at that—for the seeming good of the majority. We say *seeming good* advisedly, for, primarily and foremost, this *good* must be good for the minority that determines it. Political theoreticians point out as a shining example, how in the Greek city states, where every citizen was his own



representative in the assembly, this *greater good* was unquestionably determined by a majority. They, however, do not mention the fact that in these small city states the slaves were in majority and the free citizens in minority. In modern democracies, where the number of citizens may run into many millions, the majority hardly knows the names of those whom it delegates to determine the "greater good for the greater number." And the only time the average citizen becomes aware of this "greater good for the greater number" at all, is when he is reminded by the policeman.

This so-called "greater good for the greater number" is, therefore, of questionable authenticity. However expedient and necessary for a free society it is to uphold this fiction, it cannot be very fundamental. Admitted minorities reject it, indifferent majorities only passively accept it. As exemplified by the illustrations of ancient Greece and the modern democracies, man can exist as a social being without it. Unlike the moral law of which Immanuel Kant speaks, this ethical law lies without rather than within us.

We speak of laws, ethical, moral, and the so-called natural laws, as if they were objectives in themselves, ends in themselves, goals achieved or to be achieved. Seemingly man was evolved for no purpose other than to be repelled by pain and propelled by pleasure, or be governed by some fictitious law for the "greater good of the greater number." What this "good" is, who determines it, where it all is supposed to lead us, are, to all purposes, questions beside the point. The moral law within us tells us what is right and what is wrong. And, according to some people, this is an end in itself. Perhaps so. Children neither need nor can they see the wisdom behind the wise counsels of their good parents. The mere act of obedience is in itself of sufficient merit and recompense. But eventually children do grow up and see the purpose behind it all more clearly, and perhaps, a bit further. "It's the law," and the scientist is satis-

fied to know this law. As far as he is concerned, the goal has been attained. And so should every good child be satisfied with the law of obedience to his parents, for they know best. Should you ask the scientist what is the ultimate purpose behind this so-called struggle-for-existence law, this clever maneuvering, this game of hide and seek, the chances are that he will say that that lies outside of his province, and probably, outside the range of his interests as well.

The biologist tells us how the course of the evolution of the species is determined by the urge in every life form to overcome death; self-preservation he calls it. The weak seek to hide and run away from death, the strong grow stronger and the cunning more cunning to defy death. He tells how certain species camouflage themselves so cleverly that they cannot be easily detected by their victims or their enemies. By devouring their victims they seek to prolong life, by avoiding their enemies they sidestep death. Now, what is the logical conclusion of all this clever maneuvering, this game of hide and seek, if not the urge to live, to live on forever? Remove this urge and evolution comes to a standstill, and ultimately all life would disappear. If the scientist was consistent, he would come out boldly and say that the aim of evolution is immortality. He has already said all that in essence, except that he balks at the word "immortality." And evidently for good reason. Once he introduces such metaphysical concepts into his vocabulary, the floodgates are open for more to follow, and soon the deluge is upon him. He still remembers his long servitude under the church and the control it exercised over all his activities. He still remembers Galileo's recantation on his knees and Servetus being burned at the stake. He gained his emancipation by the French Revolution, a price he is loath to forget.

The utilitarian says that man seeks pleasure. Man eats because it gives him pleasure. He cohabits because it gives him pleasure. He lives to eat and cohabit. In other words, the

utilitarian mistakes the bait for the fish. For obviously, pleasure is only a bait that nature dangles before the individual of the species to perform a certain function. It is the proverbial carrot that one dangles before the donkey so he will pull the cart up the hill. In certain lower species, however, where the sensations of pain and pleasure are either nonexistent or still at a low ebb, nature discards all pretense and camouflage and goes to work directly in a straightforward manner: she propagates the species by cell division and feeds it by some such process as osmosis.

The symptom is often mistaken for the thing itself. Pain is taken for the disease rather than for the signal of an approaching danger. It is nature's own way of alerting us before it is too late. It is the rattle on the rattle-snake, the siren on the firehouse; it is the fever which shows how desperately the body is fighting the disease. And, disease itself is only a symptom, it is the symptom of death.

Both pleasure and pain are therefore symptoms. The one is the symptom of life, the other a symptom of death. Man seeks life and avoids death. Within this ultimate range, man fights death as a brute with his canines unsheathed and a club in his front paws. He fights it as an ethical being with the help and good will of his neighbors. And he fights it with religion, the most lethal weapon of all. Through it and by it, according to his own admission, he finally has conquered death and attained immortality.

Rising to the higher plane of ethics, the utilitarian no longer speaks of pleasure but rather happiness, happiness of the greatest number. Only in so doing, he says, can the individual himself be happy. Now, the difference between pleasure and happiness is very indistinct. The chief element that differentiates one from the other is time. Happiness may be defined as prolonged pleasure. The implication is that ethical pleasure lasts longer than sensuous pleasure. The ultimate goal then which

man seeks to attain is pleasure that lasts forever. And, since we have identified pleasure with life, it is only another way of saying that man seeks immortality.

Immortality is usually conceived of as a mode of life after death rather than as a principle or an *élan* of life. We can see this principle operating in the world of form, our geometric universe we function in, but beyond that neither our religious nor intellectual faculties as yet are adequate to grasp the imponderable, the incommensurable. To define immortality in terms of our form concepts would be to limit it, to limit the unlimitable. In the field of mathematics, certain functions become, in asymptotic regions, discontinuous in finite space, continuous in infinite space. The behavior of various functions in limited regions may only be understood through concepts of behavior in unlimited space. Infinity itself is defined by its space boundaries, though unlimitable and undefinable by our geometric space. So is immortality an existence without limit only with respect to the existence within the world of form we live in. Man's existence, in the asymptotic regions of death, becomes discontinuous in our space, continuous in higher space.



## CHAPTER 6

### *Culture*

Most of our words have humble origins. With time and usage their meanings are expanded and made more and more inclusive. Very often they so completely outgrow their infancy that they no longer can be traced back to their parents. With meanings added, they become so enriched that at times it is difficult to say just what they stand for in a given situation. In precise thinking we often have to interrupt and admonish ourselves with the Voltairian exhortation, "definissions nos termes," before we can proceed with any degree of clarity.

In everyday usage the word "culture," in its multiple application, does not seem to present any difficulties. Whether it stands for a colony of bacteria or an organism composed of human beings the context will show which is meant. Only in specialized fields, such as history, political science, and sociology, the need arises for further clarification. When we speak of Greek culture, what precisely do we mean? Are we speaking of modern or ancient Greece?—That they are not the same we all are willing to concede. The answer is obvious: classical Greece, of course. Evidently, to have a culture, a people must be productive in the arts and the sciences; they must make their mark in philosophical and religious thought. Though modern Greece lacks these qualifications, nevertheless we are willing to concede her a cultural status in our Western Culture. Yet

we often speak of a German culture, an Italian culture, a Spanish culture, though all these, as in the case of modern Greece, are only parts of Christian Culture. Here we have then cultures within a culture.

In the cultural evolution of man, if we accept such phenomena as Egypt, ancient Greece, and Christianity as cultures, it would be well to study their most outstanding characteristics so as to derive an adequate concept of culture in this sense. First of all a culture must be unique. It cannot be a mere extension or duplication of another. It is not, however, a hermetically sealed organism that can neither lend nor borrow, as Spengler would have us believe. But its nucleus, its matrix, must be unique in all its spiritual and cultural aspects, as for instance, the pyramid in Egypt, the human form in Greece, and the cross in Christianity. Cultures that develop from and about the same matrix are fundamentally alike. In so far as the human form was the matrix of Rome, Rome to that extent was Greek, a pseudo-culture.

A culture is the embodiment of the God idea. He is its matrix. The God concept and culture evolve simultaneously. This concept evolves through a culture and a culture thereby evolves through it. They are mutually creative. It is a phenomenon of creation. It is the most significant phenomenon in the evolution of man. The God concept permeates a culture throughout in all its aspects, in all its ramifications. All our thinking, feelings, imaginings are conditioned by it. Outside one's particular culture one is like a fish out of water. The Christ idea, as symbolized by the cross, evolved through our western culture, and reciprocally, Christianity evolved from and through this Christ idea. And in turn, it is through the crucified Christ alone that we can hope to conceive of God. Though the bricks of a culture are the matrices (dead Gods, godforms) of previous cultures, the touchstone, however, is the living matrix of the culture—the one and only living God, universal and supreme. It is from this

living matrix that a culture takes its complexion, both materially and spiritually. In Greece, art and architecture, literature and philosophy, were centered about the human form.

We say that our God is the only true living God, universal and omnipotent. But since we have identified God with culture, this also ought to be true of a culture. And, as a matter of fact, it is. From the time of the Crusades and the expulsion of Mohammedans from Europe, there has been no power on earth that could challenge our supremacy. There was no other culture in existence in the true meaning of the term. No two cultures, at the peak of their evolution, can exist side by side: the one or the other must go. Mohammedanism never attained the stature of a full-fledged culture: we cut it down before it could reach that stage. Consequently Mohammedans became either our vassals or puppets at our will and pleasure. Other so-called cultures, such as Hinduism and Buddhism, were already so decadent that at no time did they seriously question our world supremacy.

But how about ancient Greece, does she meet the above specifications of a culture? Small, scattered, politically disunited as she was for the most part, she was the supreme ruler of the then known earth. Up to the time of Alexander the Great, whatever culture there was in the Far East, it might just as well have been on the planet Mars, as far as Greece was concerned. In the known world, at the time of Pericles, Greek culture was universal and omnipotent like its pantheon. Waves of Persian invasion were rolled back as by a miracle. Persia, already a down-grade culture, rapidly began to disintegrate after that at the time of Darius and Xerxes.

If we were to ask a modern Greek, who his God is? the answer most likely would be, the God of Christianity—our Heavenly Father, not Zeus. Zeus died when classical Greece died. Were we to ask a modern Egyptian, who his God is? very likely it would be Allah, not Amon-Ra or Osiris. They too

disappeared with the people who built the temples of Karnak and Luxor, and the great pyramids of Gizeh. However, should we ask the same question of a Jew, the answer invariably would be the same he would have given us some four thousand years ago. The God of Abraham and Isaac is still the God of the Jew of today. Gone is the Egyptian, the Babylonian, the Assyrian, and the Greek, but not so the Hebrew, for Yahveh still lives. And as long as Yahveh lives there always will be a Jew. There is an African Jew, a Chinese Jew, a Turkish Jew, but as long as he clings to his Yahveh and obeys his commandments, no power on earth can obliterate his ethnic personality. By attaching himself to that which is constant, immutable, eternal, the victim has survived the victor, the conquered one—the conqueror.

But withal, there is no Jewish culture. A culture is an organism that attains its maturity in the expression of the properties of its matrix. And at no time, not even in the days of King David, do we find the Jewish people an expression of the omnipotence and universality of Yahveh upon the earth. However, the Jewish monotheistic conception of Yahveh—universal and omnipotent—found its logical expression in the Christian culture. Since no two cultures can exist side by side—it would be a negation of God's universality and omnipotence—it is difficult to see how a Jewish culture could have come into existence at that time—until it was too late. A whole array of full fledged cultures blocked the way to maturity. There was Sumeria, Egypt, Babylonia, Persia, Greece, all the way to Rome, who had a preemption on that which constitutes a culture.

Those who explain everything on the basis of utilitarianism should take note of Hebrew history. In essence, Yahvism consisted of aniconic worship. In other words, certain forms in nature were worshipped directly rather than as cultural symbols. Of course, the Mosaic law forbade the making and worshipping of all "graven images" of anything in the heavens above and the



earth beneath. As a result of this law, and to the extent the law was obeyed, you have an artistically sterile people. The Jews have neither the plastic nor the graphic arts or architecture. The Temple of Solomon itself was designed and built by Phoenician craftsmen, under the friendly auspices of Hiram, a Phoenician king. While the Mosaic law forbade the construction of "graven images" for purposes of worship, it did not do so when applied to material ends. For example, while one could not construct a sun disc for purposes of worship, one could, however, do so for the potter's wheel. Yet, for all this materialistic freedom, no representative art did even as much as strike root in the whole of Judea. Once the stream is cut off and diverted at its source, the whole river bed dries up.<sup>1</sup>

It is difficult to conceive of God outside of any one particular culture. Though we endow him with attributes of eternity and universality, he retains his provincial characteristics undiminished in his personal relations to us. Some philosophers and theologians have invented complicated systems of logic through which, so they claim, a truly universal, abstract God can be conceived and understood. Aside from the question of merit of such academic systems, the fact remains that besides the authors themselves, there are only a few individuals who have the desire and the qualifications to master such systems. Kierkegaard compared these philosophical systematizers to a man who, having built a huge castle, lives in a hut, by the side of it. In other words, often the philosopher is no more at home in his own system than the rest of us. It matters little what Plato said or wrote about God, but what matters is that the whole Greek civilization was the expression of God about the human form as a matrix. This expression was an act of creation of the human form hitherto unknown to any other culture.

Spengler, in his *Decline of the West*, sets up the thesis that all cultures are hermetically sealed and that they can neither lend nor borrow. In accordance with this thesis, no one can

peer with any degree of understanding into the inner sanctum of another culture. We, however, cannot subscribe to so sweeping an hypothesis. The three categories of form we already have mentioned above, namely, geometric, animal (domestic), and human, are present in all cultures. They are the primary sources of our religious feelings. They possess the universal quality of aesthetic perception. In other words, they possess the element of recognition.

In his search for stability man singled out certain forms in nature for divine worship. Around these forms as matrices, he evolved his culture. This number of godforms consists exclusively of some seven primary geometric forms, approximately the same number of our domesticated animal forms, and the human form. No God of any magnitude is known to have existed outside this group. If we study the properties of these forms we find that they are timeless, changeless, and universal—relatively speaking, eternal. Can we think of a time and place when and where the circle was not what it now is? Or the sphere, the cylinder, or the equilateral triangle that were different in anything but size? Tracing our past to the Palaeolithic Epoch, the archaeologist has always found man living in the company of the ancestors of our domesticated animals, such as cattle, goats, and horses. Finally, by making his own environment, his habitat, man has retained his own form remarkably unchanged. We know of no time or place when and where man, as a cultural being, was something else than what he is.

Yet every one of these forms has been the predominant, if not the exclusive, matrix, the central core, essence if you please, of some particular culture. A culture was born from it and has evolved about it. This creative experience no culture can share with another, if it did, they would be alike. To this extent, at any rate, we must agree with Spengler's thesis. Though the human form is universal, it is only in ancient Greece that it reached the zenith of its apotheosis. Here the classic culture in

all its aspects was the expression of the body feeling which no other culture could share. Art, music, and mathematics were the corporeal manifestations of a spirit that had not learned as yet to soar. The greatest sculptures of ancient Greece represent Gods, not men. No outsider to Greek culture can hope to recapture that divinity of the human form. Or, let us cite another instance. Though the symbol of the cross is universal, where, outside of Christianity, could its cultural apotheosis be found? What other people could recapture its spirituality?

The symptoms of decadent cultures have been diagnosed and analyzed at great lengths by such outstanding scholars as Spengler and Toynbee. Some of the symptoms are the fratricidal wars, the desertion of land for the megalopolis—the big city—so as to be nearer to the centers of amusements, and the perpetual howl sent up by the mob for free bread and circuses in the overcrowded cities. In Greece a fratricidal war that lasted for nearly three quarters of a century, known as the Peloponnesian war, hastened her on the downward path. This downward trend was only temporarily checked by Alexander's fantastic wars and his even more fantastic pan-hellenic empire. But it was too late; the seemingly incurable disease of decay had already set in. Greece was doomed.

All these are, as was said above, only symptoms. They, in themselves, are not the causes. To destroy a culture you must strike at its center, its core, its matrix. In other words, you must strike at its God idea, God concept, in order to destroy a culture. A lost war can be offset by a victorious one, but not so the loss of the spirituality of a culture. Once that is gone, the body sickens and promptly collapses. No culture can survive its God idea. Once that weakens or is destroyed, the culture perishes. It was neither Persia nor so much the homicidal strife that destroyed Greece, but rather her intellectualism under such labels as, sophism, scepticism, cynicism. Under the intellectual leaders, such as Protagoras and Gorgias, the germs of decay

were sown in the very heart of Greek culture. They started out with scepticism and ended with atheism. Intellectualism can destroy, but it cannot create a culture. That power it does not have. When spiritual vision is destroyed, a culture perishes. It was Julian Huxley, I believe, who said that at the present stage of intellectualism our Western culture could get along without the idea of God. Man, according to him, has progressed to a point where he has to assume the responsibilities for his own actions, instead of passing them on to God. But such reasoning, however logical, is purely academic, void of all reality. Let Mr. Huxley produce one single historical instance where a culture has outlived its God. Intellect divorced from religiousness has neither the hindsight nor the foresight of its own actions or the courage of its own convictions. Galileo recanted his scientific theories on his knees, while Hus, rather than recant his religious convictions, went to the stake.



## CHAPTER 7

### *The Cross as the Matrix of Christian Culture\**

A certain gold prospector once related how he had become lost somewhere in Alaska and was close to death from exhaustion and cold. He had tramped through snows for days without seeing as much as an Eskimo hut. In this place of desolation, hundreds of miles from the nearest outpost of civilization, he stumbled on a cross. It was a large cross planted in the crevice of a protruding rock, and therefore could hardly have marked a grave. Though weak and distraught, the man forgot for the time being his own immediate troubles and sat down at the foot of the cross and wondered. Here in the Arctic wastes was a symbol of a culture born in a distant country nearly two thousand years ago. This was an age of steel and machine and many wonderful inventions. A carrier of this very civilization had passed this spot and left behind a trace. This trace was in the form of a cross.

Let us picture, if we can, in our mind's eye a period of time in the distant future—say a thousand or more years hence—at which supposedly every vestige of European civilization had disappeared. Such an event, though improbable, is not as fantastic as it may sound; for many great civilizations have disappeared as if swallowed up by the earth. But were we to identify

\* This chapter is a reprint of my article under the same title in *Christianity and Society*, Vol. 9, No. 4.

our western civilization as a religious culture, the question may well arise whether or not our imagination has exceeded the bounds of possibility. In other words, can so basic an experience be obliterated from the life of the human race without creating an irreparable hiatus in the continuity of man? No great civilization, however distant, as a religious culture, has yet disappeared without first making its imprint on nations as yet to come and civilizations then unborn. Sun worship as a religious and political system is probably the oldest of all human cultures. With the possible exception of Japan and some other isolated, archaic groups of backward peoples which still practice this ancient cult, it has been seemingly obliterated from the memory of man. Like the origins of the Egyptian pyramids, the existence of sun worship has been shrouded by a veil of mystery and by, what some people prefer to call, a healthy scepticism.

Though one may be only vaguely aware of the existence of such a cult in the past, one cannot, however, fail to notice the effect that sun worship has left on the form and content of our present day civilization. Great religious painters almost invariably identify the saint by the sun disc or a circle mounted about the head. In certain church paraphernalia, the monstrance, containing the consecrated host, is represented as a sunburst. In the Jewish synagogue the double equilateral triangle, also known as the seal of Solomon or the shield of David, is often inscribed in the sun circle. The Nazi Swastika is an ancient and universal sun symbol. Though the connection may not be so apparent, the pyramid is nevertheless a sun symbol also. In the Egyptian and Mayan theocracies, it represented the Sun God ruling as a king over a nation. Our wheel system, without which our machine age cannot even be thought of, owes its origin to the worship of the sun disc.

Although cylinder worship, in the form of a tree trunk, is still in evidence among some primitive people, one still may question the possibility of some ancient civilization evolving wholly or

in part from such a worship. However, the predynastic Egyptians, before the advent of sun cult, were cylinder worshippers, and so were the Babylonians. Out of this practice evolved the Egyptian plant column and the Babylonian cylinder seal. And we find that the cylinder is very much with us either as a shaft of the machine or as a column in a building. Here again is an instance how the cultural essence of a people may survive while they themselves and their civilizations have become a mere myth.

If the past and the present be any guides at all, inventions and discoveries may disappear without a trace. Thus, the Babylonian cylinder seal as a machine disappeared for over two thousand years in the ruins of buried empires. Yet, fundamentally, it differed from the modern cylinder press in the process of the movable type only. Similarly the invention of the steam turbine was lost for nearly two thousand years. After an examination of the Khufu pyramid many people have concluded that not all the knowledge that the Egyptians possessed has been rediscovered by us. Therefore, it is quite possible that the present knowledge of electricity and the radio could lapse for several hundreds if not thousands of years only to be rediscovered around some different principle, as for instance that of the atomic energy. Furthermore, the so-called machine age, by which many people hope to be remembered, presupposes a vast, highly organized, industrialized society, a condition not always to be taken for granted.

In our imaginary flight into the future, where seemingly all outward signs of our civilization had disappeared, the symbolism, of the cross alone would remain as a part of man's spiritual heritage. A great religious painting, the ground plan of an ecclesiastical building might reveal, though inadvertently, its mysterious presence. Perhaps neither the painter nor the architect could account for it, any more than could our Renaissance painters for the sun discs that appear about the heads of the

saints. Our imaginary, future art connoisseurs would acclaim a certain painting for its spirituality without perceiving or realizing that the subtle presence of the cross, in a large measure, had enhanced this aesthetic quality. Judging from the ancient godforms ensconced in the liturgical paraphernalia<sup>1</sup> of our own churches, the cross would likewise make its appearance in the religious ritual of our future civilization. It might appear on the person of the worshipper as a charm or amulet that wards off evil powers. Sacerdotal vestments might also bear this mysterious insignia. Exorcising and protective gestures made in the form of a cross might also be practiced. Like the Egyptian obelisk, the cross most certainly would be placed over the grave, as a sign of immortality and a witness of a belief in a life after death.

Nor would the idea of the cross be confined to purely spiritual matters. Its subtle presence undoubtedly would also be manifest in the lay side of our future civilization. Since the arts are only one step removed from their religious antecedents, it stands to reason that the cross would become a matrix or a core in decorative design. Both in architecture and engineering the idea of transverse combination would continue to function as an indispensable principle of the machine. The transverse combination of a cross is neither incidental nor accidental in man's culture.

While the civilization discussed here is purely a hypothetical one, the picture of the cross in such a civilization, however, is drawn from verifiable facts. Like the cylinder and the cone, the cross appears in nature as an identity in diversity. The central axis with its lateral processes is the archetype both in plants and animals. Moses stretched out his arms after this pattern of life on Mount Horeb. When his arms grew tired, Aaron and Hur held them up until Joshua had defeated Amalek at Rephidim.<sup>2</sup> As compared with the primary geometric form, the cross is complex, being the transverse combination of two prisms or



cylinders. Therefore it is a more advanced type of a matrix than are the geometrical elements of which it is composed. The cross bears to the primary geometric form the same relation that man bears to the snake. The one is bi-axial, the other uni-axial. This higher evolutionary stage attained by man is reflected in the cross.

Although ours is the only religious culture that has evolved about the cross both as a spiritual and material matrix, the cross as a religious symbol has existed long before the Christian era. According to St. Augustine, the cross was among the ancient peoples and is as old as the human race itself. As a matter of fact, the cross in its various forms, such as the "tau" cross, the "crux ansata," and the "swastika" or "fylfot," appears in all the great civilizations of Europe, the Near and the Far East, and the American continent. It is found on some Babylonian cylinders and on the walls of Egyptian tombs and sarcophagi. The "crux ansata" was known among the ancient Egyptians as Horus emblem of life. Amon-Ra, the great Sun God, is often pictured with the crook in one hand and the sacred "tau" in the other. The Egyptians also represented the five planets by the cross in various combinations with the circle, or the crescent. A tablet from Nineveh shows Tiglath Pileser with a patté (heraldry cross) resting on his breast. Another king from Nineveh bears the Maltese cross. In Assyria the cross was very often placed before the name of a divinity. The Assyrian Venus, Hera, holds in her hand the "crux ansata," the symbol of spiritual rebirth or a life after death.<sup>3</sup>

In the Far East the story of the cross tapers off into the dim past of prehistoric times. Siva, Brahma, and Vishnu are found holding the cross. Both in India and Tibet it is one of the oldest emblems of sacred royalty. Pagodas are laid out in the form of a cross, as for instance the pagoda of Bindh Madhu at Ben-

ares. In India and Java the cross is closely associated with pyramid worship, i.e., sun worship. This latter practice is carried over to our own day, in which the cross is most always planted on the pyramidal or conical spire of the church. In China the "lao-tseu," or cross, is of the most ancient origin and appears freely on the walls of pagodas and sacred recesses. It symbolizes Heaven.<sup>4</sup> Like some other godforms, the "swastika" or "fylfot," is of Hindu origin and most probably represents the first evolutionary stage of the wheel from the sun disc. According to the Swedish scholar Montelius, this type of cross was known to the Hindu nations some three thousand and more years before Christ.<sup>5</sup> The ancient Latvians, along the Baltic, called it "saules krusts," meaning "sun cross," clearly an etymological verification of its solar origin.<sup>6</sup>

Cross worship seems to have been practically universal. Dr. Schliemann found it at Troy, and other archaeologists have exhumed it in the Mayan and Toltec pyramid cities of Mexico and Central America. On the wall of the temple of Mitla, the City of the Moon, is carved a perfect cross. The mantle of the Toltec diety, Quetzalcoatl, is covered with red crosses. The sun temple of the Inca at Cuzco, Peru, was once adorned with a cross.<sup>7</sup> The part the cross has played in the evolution of the western culture can be appreciated only if we remember that in Christian iconography, Christ is actually present under the form and semblance of the cross.<sup>8</sup> Although we worship God the Father, and his Son Christ in the human form, the human form is not however our matrix. If it were, our culture would be only a third rate or third-hand imitation of that of Greece. And, to the extent we have succumbed to this influence, in art and worship, our culture is Greek. The movement of reviving a Greco-Roman culture, known as Renaissance, was nothing but a spurious attempt to hoist upon us an alien matrix. The cross—our true matrix—ultimately triumphed. Now, as long as the

cross remains over the high altar, every human effigy could be removed without impairing the ritualistic requirements of the church.

The cross came into use early in the Christian era. Crosses have been found in the catacombs of Rome and in the ruins of Pompeii (Pompeii was destroyed in 79 A.D.). In the second century Tertullian is said to have dismissed charges of idolatry brought against some cross worshippers. On the eve of the battle against Maxentius (312 A.D.), the Roman Emperor Constantine was converted to Christianity after having a vision of the cross. According to Bishop Eusebius, the "father" of church history and the contemporary of Constantine, the whole army was witness to this super-normal phenomenon. Constantine's mother, the Empress Helena (c. 247-327) journeyed to Jerusalem (326) where she reputedly discovered the Sepulchre of Christ and the wood of the Cross. This sacred wood eventually was divided into three parts and entrusted to the care of the bishops of Jerusalem, Constantinople, and Rome. The pieces, however, seem to have multiplied to such an extent that at one time there was hardly a church or a shrine of consequence in the whole of Christendom that did not boast a nail or a splinter of the True Cross. This seeming miracle made Saint Cyril (827-869) to remark that the whole world seemed to be filled with crosses. In Charlemagne's tomb was found an emerald talisman containing a fragment of the True Cross, given to him by Empress Irene. The burghers of Aix-la-Chapelle presented the relic to Napoleon I, who wore it on his breast in the battles of Austerlitz and Wagram. Also cruciform ornaments, such as crowns, sword hilts, scepters, and monstrances are a good index of the thoroughness with which our civilization has been permeated by the symbol of the cross. "A proper description," says the Rev. Seymour, "of ecclesiastic and secular articles and furniture in which the cross is used would fill volumes."<sup>9</sup> This core or matrix of our

western culture, like the primary geometric forms, of which it is composed, will survive, while all else may disappear.

Our information about the vicissitudes of the True Cross has come down to us largely through the thirteenth century compilation (by the archbishop of Genoa, Jacobus de Varagine), known as the "Golden Legend." Whatever the merits of this source, the fact remains that these legends, apocryphal or otherwise, acted as a sort of catalytic agent that eventually precipitated our western culture. It was under the symbol of the cross that the often divided peoples of western Europe found a cultural unity. Under this symbol the crusades were initiated, one of whose far-reaching effects culminated in the discovery of America. Furthermore, the cross proved to be an unbreakable shield against Mohammedanism, a new and vigorous culture that for a time threatened to engulf all Europe.



## CHAPTER 8

### *Geometric Forms in Nature*

In our description of the matrix as a nature form which man by divine necessity singled out for religious worship we persistently have identified it as a constant. In fact, we maintain, the matrix was singled out from an infinite variety of forms for this very reason. Accepting, as we must, this criterion of selection, it is thereby implied that there is a certain continuity of impressions that persist in the body organism throughout the whole evolutionary chain in which man is only a link. Otherwise, what difference would it make in the life-time of an individual whether a form was transitory or permanent?

Although we have defined the primary geometric form as being a nature form, when we look about us in nature for such forms, we fail to discern them, at least not readily so. In nature, of course, there are all sorts of forms, an infinite number of them, and all in varying degrees of change. Many plant and animal forms have disappeared within the memory of man, and new ones have taken their places. Similarly in the mineral kingdom, disintegration and transmutation of form and content go on, and in some cases, as for instance in the radioactive metals, with surprising speed. The rate of change of form in nature, however, varies within wide limits, and, in some instances is infinitesimal. To all purposes, the sun, the moon, and the stars have undergone no change perceptible to the human eye. The

stars and the planets appear to the naked eye as radiating points of light, while the sun and the moon are as brilliant discs or circles. And so has the skydome remained eternally the same—an inverted hemispherical bowl:

“And that inverted Bowl we call the Sky,  
Whereunder crawling coop’*t* we live and die,  
Lift not thy hands to It for help—for It  
Rolls impotently on as Thou or I.”<sup>1</sup>

Among plants certain forms prevail, though individual plants themselves may become extinct. The foliage may differ widely, the tree trunk, however, appears as an identity in diversity and approaches the cylinder as a limit. In the north and south temperate zones abounds a group of evergreens known to botanists by the Latin name of “coniferae.” Although these trees derive their name from the fact that they bear their fruit in cones, this description could be applied equally well to the cone-like formation of their branches. The conifers, as a class, belong to a primeval order of trees and their fossilized remains go back to the Mesozoic and Tertiary geological formations, too distant a period to be measured in mere years or even centuries. These plant forms, such as the pine, the giant redwood, and the cypress, have been the most persistent and intimate companions of man throughout the aeons of his evolution.

Although the sequoias are found now only in California and Oregon, at one time they were widely distributed over the surface of the globe. Such trees could not help but impress the nature worshipping, primitive man, who lived in their shadows from the earliest times and who saw in them nature’s cathedrals, the temple, if not the very God himself. The “Fallen Monarch” and the “Fallen Giant,” whose prostrate trunks still show no signs of decay, were gargantuan saplings when Cheops was brooding over his plans to build the Great Pyramid on the

plains of Gizeh. One of the first-born living things on earth is the "Grizzly Giant," which, in spite of the plainly visible, centuries old scars, apparently is still in good health. Barring disasters of fire, lightning, wind, landslide, and erosion, the life of a sequoia is good for 10,000 years, and, were we to bar also disease, it becomes the only living example of something like immortality. It is also the only living thing that will defy lightning. While a gigantic pine tree, when struck, will be shattered to smithereens, the sequoia, at its worst, will come out of the Promethean struggle minus some fifty feet of its crown, serious but far from mortal a wound.

Naturalists and pioneers, who first visited the valley of the Giants, were, however, more impressed by the spirituality that seemed to pervade these rare forests than by the tremendous size of the trees. They would speak of them as "God's first Temple of fluted Columns," of "Cathedral-like archways" with "Sabbath-like calm brooding over them," and refer to what is now known as the Alabama tree as the "Pillar of the Temple," one of the most nearly perfect specimens still in existence. These giant conifers were named after the famous Cherokee Indian, Sequoyah, who gave to his people the "talking paper" of eighty-five characters.

Next to the sequoia, perhaps, the cypress is the oldest living thing on earth. The famous giant cypress of Oaxaca, Mexico, may well have witnessed the rise and fall of the Aztec empire. The name "cypress" is common to all European languages. To the Etruscans it was known as "cypra" or "cupra," while the Greeks and the Romans called it "cypris," which is nothing but the ancient name for the Goddess Venus, in whose honor the isle of Cyprus was named.<sup>2</sup> Female characteristics of the cypress tree are also brought out by certain Hebrew practices. Thus in Bethar existed the curious custom of planting a cypress at the birth of a girl. A later Hebrew name for cypress was "ashuha," meaning "female."<sup>3</sup> The cypress was also known as the Goddess

of Syria, where at one time it represented the triad of Venus, the Sun, and the Moon. And, since all female deities were largely concerned with fertility, reproduction and birth, it was but a natural step to a people believing in future life to conceive the cypress as the symbol of spiritual rebirth after physical death. The Greeks consecrated the cypress tree to Hades, as did the Romans to the God Pluto. In the "Isle of the Dead," by Böcklin, the strange beauty and the redeeming grace of the cypress seem to have softened the grey, catacomb-like cliffs and diffused peace and majestic repose over an otherwise crape-like scene of desolation and death.

Symbolic of this dual conception of death is the Persian word "servazad" for cypress with the double meaning of "no-life," or, "liberty." This latter interpretation, in particular, is significant of the liberation of the spirit after the earthly disintegration and death. Since the earliest times it has been associated with funerary rites, a practice not entirely forgotten even in our own day. From many a private and national mausoleum the cone-shaped form of the cypress rises toward the blue sky like a liquid tongue of flame, urging the spirit ever upwards, upwards to new and eternal heights.

So has the volcanic cone been worshipped as a deity since time immemorial. Although it is subject to periodic eruptions, its form approaches the cone as a limit, especially when viewed from a distance. Mount Egmont, an extinct volcano, 8250 feet in height, is a good example of a cone found in nature. It is a projecting promontory on the northern shore of Cook Strait in North Island, New Zealand. Like Mount Egmont, Osorno of southern Chile is an extinct volcano and rises some 6,747 feet in height. The tectonic cone of Mayon, in the Philippines, rises from a broad base on the western shores of Albay Gulf between the towns of Legaspi and Tabaco. It forms a remarkably symmetrical volcano that has rightfully earned the title of being the "most perfect cone in the world." It is approximately 7,943 feet



in height. In spite of the frequent eruptions and loss of life, Mayon must be regarded as a relatively mild volcano, or else its summit would not appear to taper off almost to a point. The tectonic mountains of Ararat and Etna, because of violent eruptions, are less symmetrical cones than those mentioned above.

Perhaps the most famous of all the volcanoes is Japan's Holy Mountain Fujiyama, an active debris cone, 12,365 feet high, and one that averages an eruption for every eighty-one years. Its form is fairly regular and, next to Mayon volcano of the Philippines, it is said to be the best preserved cone in existence, which would indicate that it is not a very violent volcano. The origin of its name is not clear, for Fuji is not exactly a Japanese word. It is, however, conjectured that it comes either from the Ainu word for "fire," or, from the Japanese "fu-shi," meaning, "no death."<sup>4</sup> This sacred conic mountain is omnipresent in Japanese decorative art, such as lacquers, porcelains, and screens. "There is scarcely a single one of all the applied fine arts whose greatest masters have not found some of their highest inspiration in the fascination of its form, its color, or its numberless and varied charms."<sup>5</sup> And according to another writer, ". . . the Japanese look for the effigy of the lovely mountain everywhere and at all times."

"Great Fusi-yama," goes an old song, "towering to the sky!  
A treasure art thou giv'n to mortal man,  
A God-Protector watching over Japan."

In simple, Homeric narrative reads another poet:

"When heaven and earth were separated,  
Mount Fuji, in holy repose soared in Suruga.  
Looking up to the summit, the shining sun  
dims, the bright moon darkens, the white cloud  
shrinks. Sometimes it snows. We have seen  
long generations telling of Mount Fuji."

The artist Hokusai, who lived some hundred years ago, made his specialty the portraying of the everlasting presence of the holy mountain in the lives of his people. He was not only a great but also a prolific artist, who made a series of "Thirty-Six Views" and "One Hundred Views" of the theme center of his art.

The volcano, as a rule, has been regarded as a Love Goddess. The name "Love Goddess," however, covers plenty of ground. She is the symbol of birth, death, and resurrection. In other words, she is not only the Goddess of birth but also of rebirth, that is, as a spirit after death. The volcanic cone represents both phases: violent destruction, and luxuriant, prosperous life afterwards.

Like the persistent limit of the tectonic cone as an identity in diversity, so the pyramidal peaks of the residual mountains remain eternally the same. These mountain-forms, through their sheer grandeur and majesty, achieve a universal effect that spans great distances of an otherwise mountainless country. Thus the Himalayas are known to the inhabitants of the Gobi desert, and the Andes to those of the flats of Pampas, as if they were in their own backyard. Viewed in the light of the four cardinal directions of the sun, the abstract concept of the pyramid is a natural limit which the residual mountain will approach.

Mountain worship has been practiced since the earliest times. It can still be witnessed today. In Tibet thousands upon thousands of pilgrims from all parts of India form a continuous procession of "the most sacred mountain in the world," Mount Kailasa, in the Himalayas. "If you will follow the life of modern India and join the current stream of pilgrims wending their way from shrine to shrine, you will find that the ultimate goal of sadhu and sannyasin is up the rugged Himalayan slopes to Badrinath and Hedarnath, or to the ancient sanctuary of the Abode of Snow or Mount Kailasa."<sup>6</sup> This holy mountain lies

on the Indo-Tibetan border and is very difficult of access. It is by no means one of the highest of the Himalayan peaks (21,976 ft.), though it may be the most majestic and awe inspiring. It is the seat of the great Brahma, as well as of Vishnu, and Siva, thus completing the holy trinity. From remote antiquity to our own day all religious brands and every school of thought have dipped into its rich mythology and delved into its mystic past. Literally billions of pilgrims and devotees since time immemorial have tramped many a weary mile, perhaps never to return alive, if only to catch a glimpse of Mount Kailasa's overwhelming presence. "He who thinks of Himachol, though he should not behold him, is greater than he who performs all worship at Kasi (Benares). As the dew is dried up by the morning sun, so are the sins of mankind by the sight of Himachol."<sup>7</sup> Or, quoting again from Havell: "There is only one place in India, Kailasa in the Himalayas, the sacred spot where, as the Mahabharata declares, Vyasa taught the Vedas to his disciples, in which such a universal symbol has existed for untold ages—a snow-crowned symbol shining like a beacon on the roof of the world, blue-necked like a lamp in a windless place, on which all India has worshipped from the dawn of her history."

China too has her holy mountains. As a matter of fact, she has five such mountains of various degrees of sacredness, precisely as is the case with the Himalayan peaks in India. The five sacred mountains are: Tai Shan (east mountain), Nan Yo (south), Sung Shan (center), Hua Shan (west), Heng Shan (north). And, as in the case of Kailasa, Tai Shan is the holiest of these. The ancient name for Tai Shan was Tai Tsung, or Mount Genesis, a name to which it is still referred even to this day in classic poetry.<sup>8</sup>

Then there is the mythical mountain Meru, known and worshipped throughout the Far East and the Isles of the Pacific, symbolical of the whole Himalayan range. In a Tibetan painting it is pictured as a group of seven mountain peaks arranged in

pyramidal formation. In Siam the name Meru is applied to the pyramid-like roofs of their temples. In Burma the Meru Symbol appears as massive pyramid structures, known to the natives as Myimmo Daung, built next to their temples.

The mountain has always been regarded as a holy place where man might seek communion with his God. All sacred writings, such as the Bible, the Koran, and the Vedas, will attest to this fact. In the Old Testament mention is often made of Mount Horeb, the "Mount of God," where Moses beheld the angel of the Lord and saw the burning bush, and where the Prophet Elijah went to fast for forty days and forty nights. It was on Mount Sinai that God appeared to Moses and presented him with the tables of the Ten Commandments. In the Exodus we read that the Lord hovered over Sinai for six days like a cloud, and, on the seventh day when it cleared off, the top of the mountain was seen to burst into flames with the glory of the Lord. Also, in the New Testament we find a number of allusions to the sacred character of the mountain. Apostle Peter tells us that he was with Jesus Christ "in the holy mount" when a voice from heaven came saying: "This is My beloved Son, in whom I am well pleased."

The mountain evidently received its sacred character largely through sun worship, as when a man ascends the mountain top to greet the rising sun. Since the earliest of times man worshipped directly the sun disc as a God, as in the words of the poet:

"Man arose and faced the morning Sun,  
And in a voice of gladness said,  
Thy will be done, oh Lord."

Or the Negro spiritual:

"We will all sing togedder on dat day,  
We will all sing togedder on dat day,



En' I'll fall upon my knees  
En' face de risin' sun.  
Oh Lawd! hab mussy on me."

Both man and animal respond to the eternal glory of the sun. The crowing cock rouses to greet the coming dawn. Birds mate and nest and migrate with the change of seasons. All nature wakes with his rising and goes to sleep with his setting.

"I climbed the highest mountain top  
to see where Sun does go to sleep,  
where does he strike his tent . . ."

Professor Elliot<sup>9</sup> tells of a certain lemur in captivity who every morning would perform a simple sun ritual. It would face the east, sit up on his hind legs, and, with his arms wide-open, gaze contemplatively for a few minutes at the rising sun.

Both Homer and Goethe were sun poets . . . And when the rosy-fingered Dawn appeared, the child of morning . . . Ueber Thaal und Fluss getragen Zieht rein der Sonne Wagen . . . Their poetry is permeated with the golden warmth of the Sun.

In the Sun's eternal comings, in the Sun's eternal goings, sadness sublimates into yearnings, joys—into prayers.

These then are some of the geometric forms in nature that are timeless, changeless, and universal. As long as the human species has been on this earth, we know of no time or place where these forms did not exist, that is, in places inhabited by man. Furthermore, these geometric matrices in nature have undergone no change. Man has always felt their presence, and well he may, for he has always been in their presence.<sup>10</sup> These geometric forms in nature have been recorded during their million-year exposure as archetypes on the sensitive plasma cell. The archetypes in turn have become man's inner directive. We seek in nature a view of the lofty mountain peaks, the tall,

everlasting trees, the open sky, the burning sun, just to reassure ourselves once more of our divine affinity for these constant forms of immortality. Man acts as if he anticipated events as yet unborn and undetectable by his physical senses. It was by virtue of this geometric directive that man was enabled to pass from the state of nature to one of culture. This transition, furthermore, was made possible through the selection of certain animal forms and the increasing awareness, on the part of man, of his own form. For next to the geometric forms, these are the most stable and universal. They too, not unlike the geometric forms, by virtue of their stability, have made their imprint on the plasma cell. Archetypes so formed, however, are not as basic as those of the geometric matrices. The geometric forms differentiate man from animal, while animal and human forms differentiate man from man. For it is only through the culture of human and animal forms that man reaches a certain stage of sophistication, and hence—differentiation.

## CHAPTER 9

### *Geometric Forms in Culture*

As we survey the necropolis of earlier civilizations we find that the geometric form is persistently present and that in most cases it has outlived all else. If anything else has survived, it has survived largely because of the protection the geometric form affords. Thus, had it not been for the pyramid, the cylinder (column), and the prism (the mastaba with its rectangular serdabs) very little would have been preserved of Egyptian civilization.

Our observation of ancient civilizations leads us to the two following conclusions: first, that the primary geometric form in its cultural state is common to all mankind, and, secondly, that it is the most permanent and universal of all forms both in nature and cultivation.

Scant as is our knowledge of the builders of the Stonehenge, we do know from the remains of this unique megalithic structure that they were familiar with certain geometric forms, such as the circle, the rectangle, and the prism. These and similar forms are still discernible among the ruins; all else has vanished without a trace. In India the richest, archaeological treasure stores are the hemispherical "stupas,"<sup>1</sup> such as those of Bharaut and Sanchi, and the pillars (prism) and columns (cylinder) of the temple of Ellora<sup>2</sup> of the holy Mount Kailasa. Of the vanished cities of Ceylon all that remains are the hemi-

spherical "dagobas," which consist of a rectangular prism, a cylinder (tower), and a conical spire. Similarly on the American continent ample evidence exists that the Indian was familiar with nearly all the geometric forms,<sup>3</sup> though some of these he knew in a religious sense only. The index of his civilization is adequately defined by the geometric form found in the pyramid cities of Yucatan and Guatemala and in the ruins of Coricancha at Cuzco (Peru). Were it not for the indestructibility of the geometric form as exemplified by the great pyramid and the caracol tower (cylinder) of Chichen Itza and the Calendar Stone (circle) of Teotihuacan little or nothing would have been preserved of Mayan civilization.

Were we to take an aerial picture of the widely scattered points of former civilizations throughout the Mediterranean basin and the Near Eastern countries, we would be able to find even a more convincing proof of the indestructibility and the persistent presence of the geometric form. Of all forms it seems to be able to defy best the ravages of time and of man as well. In the bombed cities, in the late holocaust of aerial warfare, if anything at all is left intact, it will invariably be the geometric matrices, singly or in combination. While the great temples of Karnak and Luxor have fallen into hopeless ruins, the column (cylinder), the obelisk (pyramid and prism), and the rectangular surfaces alone have survived sufficiently intact to serve the archaeologist as bases for reconstruction. Similarly the pyramids of Gizeh are nothing but geometric matrices stripped of all architectural forms and decorative surface dressings. Clearly, architecture is to the geometric form what clothes are to man. Architecture changes, the geometric form remains the same. *The geometric forms one selects, the order in which one combines them and the way one dresses them, determine an architectural style.*

Writers in architecture often muse over the origins of what they prefer to call certain architectural forms. These forms,



according to a seeming consensus of opinion, came into existence by the grace and through the ingenuity of the local architect. He devised them, it is explained, in answer to some pressing need. Thus, in Auvergne, southeastern France, he invented cone-shaped roofs so as to meet the weather conditions peculiar to that region. In the case of the Persian tomb towers, of the eleventh and twelfth centuries A.D., the architect, with no such utilitarian purpose in mind, experienced the inexplicable urge to copy the supposedly cone-like tent of the desert nomad. And similarly the Egyptian pyramid, according to architectural writers, was the product of the attempt of the local architects to build for the pharaoh a glorious tomb. Some of these writers have even gone out on a limb and described how the pyramid idea was inadvertently discovered by the evidently aimless process of superimposing receding mastabas, as it is supposedly exemplified in the step pyramids of Sakkara and Medum. And so the Mayan pyramids on the American continent are supposed to have had a more or less casual birth, without antecedents or breeding. The story of the column (cylinder) is very much the same as that of the pyramid and the cone. It is but another testimony of the inexplicable, almost unfathomable ability of man to create at will and at the drop of his proverbial hat, so to speak, forms that did not exist before.<sup>4</sup>

A similarly flippant treatment is accorded to the rest of the so-called "architectural" forms of this category. It is brought into being by a sort of sleight of hand of the architect under the not too genteel proddings of a utilitarian necessity, the much over-rated and over-publicized mother of all invention.<sup>5</sup>

It seems that it had never occurred to the proponents of these views that the stock of this type of forms has long since been exhausted and that no new ones have been added within the memory of man. Were they but ordinary architectural forms that one can invent and create at will at the promptings of "mother necessity," no limits need exist. A careful investigation,

however, will disclose that these forms, far from being ordinary, are extraordinary and unique and belong to a distinct class made up of the primary geometric forms. Now, the primary geometric form is not a mere architectural blueprint. It is all that and more. In fact, it is the basic blueprint or the mode of life by which man rose above an animal-like condition. In short, it is the matrix of civilization.<sup>6</sup>

While the geometric forms themselves have a limited power of variation, their power of combination, on the other hand, is without limit. It is, therefore, only natural that the architect should be largely, if not entirely, concerned with the unlimited possibilities of combination. And architecture itself may be defined as the art or process of selecting, combining, and dressing the geometric matrix. The geometric forms one selects, the order in which one combines them, and the way one dresses them, determines an architectural style. The architect no more invented the geometric form than he did the stones he built with.<sup>7</sup>

So far we have considered the geometric form largely as an architectural matrix. And, to all purposes, ancient civilizations would seem to be adequately defined by their monumental architectures. They reflect and delineate the religious beliefs, the arts, the crafts, and the sciences of an ancient people with a faithfulness that no other single field of human endeavor could. However, were we to investigate the other spheres of man's activities, we would find that the geometric form is here equally at home as a matrix. For the present, however, we might touch, if only briefly, upon the geometric form as a matrix of the machine of steel. Even a superficial examination of our high-g geared machines would convince us that without the cylinder (shaft), the circle (wheel), and the sphere (ball bearings), our so-called machine age could not even be thought of. It is not for the engineer any more than for the architect to invent new forms (as if such a thing were possible), but rather to select and com-

bine the geometric matrices so as to increase their usefulness. Likewise celestial mechanics has the geometric form for a matrix. The celestial bodies themselves approach the geometric form as a limit and move according to some geometric pattern so that the loci can be fixed and determined with precision at any given time.

Primitive people, however, have little or nothing to show in the way of what we commonly understand by "civilization." If they are our contemporaries, they profit little or nothing by our machine age, or, if they lived in the immediate or distant past, then they have left no monumental architectures behind them. The impression that one may gain, therefore, would be that man can live as a man without the benefit of the geometric form. Such a conclusion, however, is erroneous. Since the cultivation of the geometric form is the index of man's civilization, its absence could only mean the absence of man. And, as a matter of fact no savage, however primitive, can exist without making some use of the geometric form.

One reason why so little evidence of the geometric form among primitive peoples is available, is because of the perishable plant material they often employ in their constructions. The main reason, however, for this apparent scarcity is that the savage, while familiar with nearly all the primary geometric forms, knows most of them in a religious sense only, apart from their practical uses. And, geometric forms as spiritual symbolisms are conspicuous neither for their size nor for their finished craftsmanship, but when used for politico-religious ends, they become Gargantuan matrices for Cyclopean structures. Geometric symbolism, purely as a form of religion, was no more capable of producing monumental architecture than was primitive Christianity, or any other simple creed for that matter. While St. Augustine confined himself to the building of a "City of God," ambitious, politically minded popes reared basilicas and cathedrals in fine and durable marble. And it is in this

limited, practical application of the geometric form that the savage chiefly differs from the civilized man. Thus, the savage may know the circle as a sun fetish, but not as a wheel. Even the ancient and the more or less civilized peoples of the Far and the Near East knew the hemisphere as a symbol of divinity and sacred royalty, but not as an umbrella that would shield one from the sun and protect him from the rain. The cylinder, however, even among the most primitive people, appears in the capacity of both a fetish and a machine. The pyramid, on the other hand, appears as a sun symbol only, or, as among the Egyptians and the Mayans, as a sun God ruling as a king over a nation. Among the ancient civilizations of the Near Eastern countries, we find the cone in an advanced state of apotheosis as a love deity, such as Astarte and Hathor.

It might appear that the main, if not the sole function of the column is to support the roof. That this is not the case will be evident from even a superficial examination. In many instances the column is attached to the wall, as if it could not stand on its own feet, let alone support weight. Sometimes the columns appear in groups and in places where they would be least wanted were they to subtend any weight. In the westwork of the Minster Church of Essen, there stands a solitary porphyry column in the main entrance of the center aisle of the nave, next to the holy water font. It supports nothing. Originally it bore the gold cross triumphant, which was said to have contained a splinter of the actual cross on which Christ was crucified.<sup>9</sup> Great religious painters, who seem to be intuitively aware of the intimate relationship that exists between the geometric form and divine worship, often convey the presence of Christ, or that of his disciples, by the column or a fragment of a column. Columns also mark the site of a church or a piece of consecrated ground.

In the early Christian church architecture, we descry a persistent reticence to display the column to advantage with the bacchanalian abandon of the pagan temple. The martyr aspect



of the Christian theology and the austere exterior of the church would seem to preclude all thought of an aesthetic expression or the propagation of an idolatrous cult. Still, notwithstanding all appearances, within the chastened interior we find both the beauties and the esoteric mysteries of the column well preserved and cultivated with an inadvertent and almost casual air of tolerance.

In the bizarre, chaotic architectural medley which goes to make up the Church of the Holy Sepulchre in Jerusalem, the column in particular enjoys certain reliquary properties and is closely linked to the life of Christ. In a niche of the Chapel of the Apparition is preserved a fragment of doubtful authenticity (a rival fragment exists in the Santa Prassede Church at Rome) from the Column of the Scourging, deposited there during the Crusades. The circular dome of the Chapel of the Holy Sepulchre proper was originally supported by twelve columns representing the twelve disciples, filched from some ancient, pagan temple. In the outer corner of St. James Chapel stands a solitary column in mystic symbolism of the saint and great apostle.

In the Touro Synagogue of Rhode Island, built in 1763, the column is put to similar purpose. Twelve wooden columns, each a solid tree trunk, symbolically represent the twelve tribes of Israel. This oldest surviving building of its kind in this country was just set aside by the Department of Interior as an historical monument and, appropriately enough, as a shrine of Judaism.<sup>10</sup>

The identification of the saint with the column is comparatively a frequent practice. In the central portal (west front) of the Cathedral of Chartres, France, Biblical figures form large sections of a group of columns. Incidentally, according to most chroniclers of the Middle Ages, the cathedral was built on the site of the ruins of a druid temple notorious for its nature worship.

As our investigation of ancient civilizations goes deeper and deeper into the past, we become more and more aware of the

increasingly religious and constantly decreasing material significance attached to the geometric form. In fact, we might say that they are inversely proportional to each other. Thus among the Egyptians the pyramid was the symbolical apotheosis of the pharaoh ruling over the nation as the Sun God Ra. Here also the plant column (cylinder) is accorded a religious significance as an Osirian symbol, exacting religious worship instead of doing some practical, physical work. A closely packed forest of massive stone columns, as that of the Hypostyle Hall of Karnak, surely could not have served merely as a prop for the light and shallow roof. To say that the Egyptian columns were placed there in order to support the roof would be like saying that man was given a head in order that he may wear a hat! The roof was originally placed over the cylindrical godform for the sole purpose of protecting and shielding it as a man protects and shields his head with a hat. The first man-made columns in stone were found in the royal mortuary chambers, the sacred chapels, and avenues of the Sakkara Step Pyramid. They, however, are not free, independent architectural props, but rather reinforced uprights in high relief of either a short wall section or a sunken panel. Along the avenue within the sacred enclosure, or temenos, of the Step Pyramid, columns occur in pairs as corner posts of small wall sections at regular and frequent intervals. These wall sections have seemingly no purpose other than to hold up the column.<sup>11</sup>

Cylinder worship is universal. It is practiced by some primitive people even today, as for instance, the Djukas of Dutch Guiana. Among our plains Indians the location and the cutting of the center-pole, known as Nawahtaheh, for the Offerings Lodge, play an important part in the ritual of the sun dance. Chalcolithic cult has existed in India since prehistoric times. The "asvatha" (*ficus religiosa*) has been considered as sacred throughout the Vedic epics and the Puranas.<sup>12</sup> Its appearance on sealings found in the excavations at Sind, Harappa, and

Mohenjo-Daro can be taken as an unmistakable sign of its sacred character. In Egypt the ancient God Osiris was often represented by a tree trunk, the emblem of life. Among the Canaanites and the Phoenicians both Baal and Ashtoreth were vicariously represented by the tree trunk. The ancient Hebrews also worshipped the tree trunk, among all sorts of menhirs, under such names as "ashera," "pillar," and "grove." The "ashera" was a wooden post that stood next to the altars of the various Gods, such as Baal and Yahveh, not only at such places as Beth-el and Samaria, but even at Jerusalem.<sup>13</sup> Originally, however, "ashera" was the direct representation of the God himself.<sup>14</sup> Its worship, however, was forbidden by the Deuteronomic law and, eventually, was supposedly abolished in Josiah's reforms.<sup>15</sup> But significantly enough, while the king was making this "covenant before the Lord," he "stood by a pillar" in the temple.<sup>16</sup> Among the various images (mazzebah) of Yahveh, mentioned in the Bible, are the two columns, Jachin and Boaz of the Temple of Solomon.<sup>17</sup> They were not intended as supports of anything, but had a purpose all their own as shown by their individual names. The word "ashera" permeates early Jewish religion and, it is believed, it originally stood for the Phoenician Venus Ashtoreth.<sup>18</sup>

In ancient Babylon, the stela of Hammurabi (2123-2081 B.C.), a diorite column nearly eight feet in height, is another illustration of the sacred character of the cylinder. A cut, or a headpiece, in the rounded top of the column, shows the king receiving the "law" from the hands of a Sun God, presumably, Shamash. The 247 laws so handed down, are finely traced, in some 3,600 lines, around the column. This body of laws is known as the Hammurabi code of civil law. The column was set up at Esagila in the Temple of Marduk.<sup>19</sup> Then there are the so-called Babylonian boundary stones or "kudurru" in the form of short, rounded-off cylinders, usually deposited in the temple or some private shrine. They are not, however, boundary

markers in any sense of the word, but rather semi-sacred, royal "letters patent" creating a landed nobility in Babylonia during the second millennium (the so-called Kassite period).

Another instance of cylinder worship is the cylinder seal, whose recorded history goes back to the fourth millennium B.C. and, as a matter of fact, antedates the art of writing. The earliest cylinder seals, therefore, bear no inscriptions. Later, mythological designs appear on them, showing Gods with their attendants and processions of religious worshippers. Now, a seal is a taboo, an injunction, an authoritative command forbidding one to break a contract, a lease, or appropriate somebody else's goods. To make the taboo not only authentic but also binding, it was cast into a form that every one would know, fear, and respect. The cylindrical godform was such a taboo whose sacred imprint was left on the clay tablet, requiring no further elucidation, explanation, or inscription. Therefore, to break the seal in other than a prescribed and legitimate way was the equivalent of breaking the sacred word and image of a God. The Babylonian cylinder seal, furthermore, was worn very often on a string about the neck as an amulet or talisman. The Egyptian hieroglyph for a seal is a cylinder attached to a loop of a string, and, like the sacred scarab, the cylinder seal often came to be known by the name of some particular God.

The cultural story of the cone is not very different from that of the cylinder or any other primary geometric form. But whereas the cylinder almost always symbolizes a male deity, the cone is a feminine matrix. Tacitus says that in his time Astarte was worshipped in the form of a cone at the famous temples of Paphos and Byblos.<sup>20</sup> The Assyrian pine or fir cones were regarded as symbols of fertility since time immemorial.<sup>21</sup> The "imamzadehs," or tombs of saints, in Khuzistan, Persia, are in the form of pine cones with serrated knobs, as for instance the tomb of Daniel at Susa (modern Shuster). And, as is well known, funereal rites have always been closely related



to mother goddess cult and rebirth after death. From the mound at Tello, site of the ancient Sumerian city of Lagash, archaeologists have recovered a great number of baked clay cones, embedded in the walls and floor of the temple. They invariably bear votive inscriptions by some "patesi," or governor, of the city, addressed to the local deity to whom the temple was dedicated.<sup>22</sup> In the ruins of the Babylonian ziggurat (temple tower) of Nabu (Assyro-Babylonian divinity) funerary cones were found bearing appropriate inscriptions for the protection of the grave.<sup>23</sup>

During the late Assyrian and early Persian period (700-400 B.C.) the cone was employed more and more for sealing clay tablets and thus eventually came to replace the cylinder that had been used for this purpose since the earliest times. Less elaborate scenes and figures were found on the cone than on the cylinder, but they always were reminiscent and symbolical of divine worship. Thus, a chalcedony cone seal reveals a priest standing before a shrine at which the two great Assyrian divinities, Marduk and Nabu, appear in the company of a mythological beast. Another Assyrian seal cone shows a priest before a sacred tree, while the God Ashur is seen in the winged disc above. By bringing the cone into so conspicuous a relief, Assyria had broken with the Mesopotamian tradition of the cylinder seal and established her own culture. Even after the downfall of Assyria (615 B.C.), the cone became the most popular form for the seal in Babylonia during her brief renaissance, and throughout the Near East for many centuries to come.

Of interest are also the Persian tomb towers that were built during the Seljuk period, or, approximately from the eleventh to the thirteenth century. These royal mausoleums consisted almost invariably and exclusively of two perfect geometric solids, the cylinder and the cone. Reminiscent of the Avesta ritual of burial, the coffin, containing the body of the deceased monarch, was suspended high in the conical dome to prevent

desecration. Needless to say, this custom of disposing of the dead goes back to prehistoric times, a practice still in vogue among some primitive peoples of today. Yet, in spite of these precautions, the coffins are no longer there and the mausoleums are indeed comparable to empty tombs, void from the ground to the very apex of the cone of any architectural embellishments. Except for an occasional splash of color brought out by the burning sun, these tomb towers are of uncompromising severity from without and of ghastly emptiness as seen from within. It may seem strange that a monarch like Qabus, a poet and a man of culture and sophisticated taste, should have built for himself so austere and bare a monument. However, as a man of genius, he might have sickened of all the royal pomp and sham which surrounded him and was strongly fascinated by the sheer spirituality of the primeval geometric form. The Qunbad-i-Qabus is about 167 feet in height and has an outer diameter of 48 feet. It is the earliest tomb tower in existence showing triangular flanges, which surround the otherwise circular shaft, giving thus its cross section the form of a ten-pointed star.

The cone-shaped dwellings, such as the tent and other tent-like structures, among the early peoples of the East, in general, must be regarded as the symbol of fertility and reproduction. This meaning, naturally enough, was evolved in the course of religious worship of the cone as a Goddess of Love, such as Hathor of the Egyptians, Mylitta of the Assyrians, and Astarte of the Phoenicians. The cone, in fact, became the symbol of fertility not only in man but in animal and grain as well. How early the cone came to be associated with the grain keep or silo is difficult to say, but this much is certain: at no time did it serve a mere utilitarian purpose. Even in our own day of stark materialism and the much vaunted realism and utilitarianism, agriculturalists and builders frankly admit that the conical roof of the silo is a more or less useless, but probably an ornamental, feature that the farmer could easily dispense with.<sup>24</sup> And yet,

how many silos do we see in our far-flung countryside without this symbol of reproduction and continuity of life in general? The word "silo" seems to be common to all European languages and is said to have been derived from the Greek "siros," meaning cornpit. This is a poetical expression of great antiquity that has been borrowed in turn from even some more distant source. Now, grain or corn the world over is symbolical of life, be it material or spiritual, and, therefore, a fit offering on many an occasion for a God. The further we recede into the prehistoric past the more clearly do we perceive religious practices that merge grain, cattle, and man, all into a single stream of life.

The funerary aspect of the cone persists in the church spire of our own day where it, like the pyramid, symbolizes, though inadvertently, the death and resurrection of Christ. The cone, the pyramid, and the obelisk have emerged out of man's cultural (spiritual) experience as the universal symbols of a belief in a life after death. In Vedic tradition the bamboo sikhara cone is the Vishnu symbol of life, while the stupa (hemisphere) is regarded as the Siva symbol of death. Yet, whatever the immediate distinction, here life and death in the light of reincarnation, have little or nothing to tell one apart from the other. And thus the hemispherical stupa was invariably surmounted by a conical finial. It would be a mistake to identify any of the great cultural matrices with the idea of death. As a matter of fact, there are no Gods of death; they all are Gods of life, in fact, life eternal. Though we plant the cross over the grave, it is not a symbol of death.

In the Egyptian pyramid in particular the funerary aspect seems to persist. The pyramids of Gizeh are located on the western bank of the Nile, symbolical of the setting sun. Yet the pyramid is the theocratic symbol through which the Golden Ra rules over a nation as a pharaoh. The Sumerian word for pyramid is "duranki," meaning "a tie between heaven and earth." During the latter part of the third and during the full span of

the fourth dynasties, a period in which a great pharaoh, like Zoser or Khufu, could pass with impunity for the Golden Ra himself, pyramid building burst upon Egypt like the proverbial full-blown rose in the desert. The passing of the Old Kingdom, the short interregnum, and the period of the Middle Kingdom, mark the decline of the pyramid and the rise of plant column architecture—a sure sign of the waning pharaohnic apotheosis and the shift from sun to Osiris worship. Then again, the popularity the obelisk enjoyed during the New Kingdom is a good index of the revival of the solar cult and the godship of the pharaoh.

It was the ruler of Upper Egypt, bearing the conspicuous sun title of Horus N'ar, or Narmer (perhaps none other than the son of Menes—founder of the first dynasty), who conquered Lower Egypt (delta), and thus “unified” the two kingdoms. He established his capital at Memphis, near the delta, presumably to overwhelm and overawe a subject people with the glories of the sun. And it was here that the great pyramid boom was started, though some of the best stone quarries lie farther south. It is noteworthy that the so-called sun temples are found in Upper Egypt, whereas the pyramids are in Lower Egypt. The chief element of the temple was the plant column, reminiscent of Osiris worship, whereas the pyramid is the sacred symbol of the sun. Around Memphis, the seat of the sun regime, naturally enough, only the solar faith could prevail, but in Upper Egypt, whether for fear of an insurrection, or, because of a diplomatic tolerance characteristic of the Egyptian pharaohs, sun temples were built under the guise of Osiris worship. These temples were so much Osirian in their architectural structure that later miniature pyramids, or obelisks, perched on tapering, elongated pedestals, had to be planted in pairs in front of the main entrance as a necessary reminder to the people that after all they were dedicated to the sun.

The Egyptians, very likely, had been experimenting with



pyramid building long before the unification of the two kingdoms. The first mention of the appearance of the pyramid in Egypt is in connection with the miraculous discovery of the "ben stone" in the ancient city of On, or Heliopolis.<sup>25</sup> It is usually pictured as a miniature pyramid, or pyramidion, resting on a platform of terraced mastabas.

Although the pyramid is the sun matrix of Egyptian culture, it did not originate here any more than did sculpture in Greece. No form originates with the culture of which it becomes a matrix. Notwithstanding Oswald Spengler's dictum of hermetically sealed-off cultures, a matrix knows no such boundaries. Many cultures participate in its evolution, though only in one will it come to fruition. All we can say is that the pyramid reached its maturity in the Old Kingdom of Egypt.

Suggestive of its mountain origin is the ancient Sumerian name "E-harsag," meaning "mountain house," given to the great pyramid of Ur. What such a mountain house was like is told us by Gudea, the patesi, or priest-king, of Lagash.<sup>26</sup> The Goddess Nina had appeared to him in a dream advising him to build a temple to Ningirsu, the patron God of the City. Whereupon Gudea brought materials from all parts of the country and constructed a mountain temple of seven steps, whose summit was like that of the cedar, and which shone like the sun itself. In the finished temple was placed the holy post, or obelisk that, like the Egyptians, he compared with the "divine bird," the fabulous phoenix. Gudea lived at the time (presumably 2500 B.C.) of Babylonian renaissance and could speak with authority on the ancient sun culture he himself was instrumental in reviving. He restored old monuments and built new ones, like the seven step pyramid of Lagash, that surpassed those of his predecessors.

Reminiscent of mountain worship are also the homely, descriptive, and endearing expressions the Egyptians bestowed on their Gizeh pyramids, such as, "The Cool One," "The Golden

One," "The Splendor of the Light," "The Beautiful Place," and so forth. In other words, the pyramid was spoken of interchangeably as the "mountain" (The Cool One), or the "sun" (The Golden One). The Cheops (Khufu) Pyramid is conspicuous, among other things, for the absence of any inscriptions, except for the single hieroglyph symbolizing "Hermachies," or the "Horizon." This otherwise mysterious hieroglyph assumes a meaning only in the light of mountain worship, as when a man ascends a mountain so he may scan the "Hermachies" on which "The Golden One" is to appear. Herodotus relates how he, on his visit to Asia, saw Persians ascend the mountain top and worship the sun and the whole skydome.<sup>27</sup> But, as so often happens in every religious system, the substance was forgotten for the form, and the mountain eventually came to be worshipped separately, though originally it was intimately related to the worship of the sun.

In order to negotiate a particularly steep incline of the mountain side, the devout ancestors of the Chinese, or the Hindus in the Himalayas, invented a series of steps, arranged one behind and the other above it, in such a way as to permit easy ascent or descent from one level to another, so that even the weak and the old could reach, if not the summit, then at least a certain plane or station of spiritual attainment. This principle of the inclined stairway became, though much later, very popular with the Egyptians, to form the inner core or skeleton of their pyramids. Similarly, the winding stairs around a central cliff or an open newel (the inclined walls of a well) were evolved through the driving force of religious necessity. This method of ascending otherwise inaccessible heights was later adopted by the Babylonians in the ziggurat, and by the Mayans in the caracol of Chichen Itza.

A mountain-worshipping people that has an easy access to the mountain itself, has no need or the desire to build massive pyramids or lofty spires. The pagoda with its curved-up eaves

and its stratified roofs is, relatively speaking, a modest structure. It is the tradition-worn, stylized proxy of the holy mountain with its manifold, superimposed roofs denoting the various stages or levels of merit and attainment in the ascension of the holy mountain, such as Tai Shan. Many an architect has ventured the opinion that the up-turned roof hips originated from the up-turned flaps of the tent. However, we feel, that so basic a structure as the pagoda must have a more basic origin than the makeshift shelter provided by a tent. The tent itself lacks a pedigree and breeding to boast so thoroughbred an offspring as the pagoda. We might, however, suggest that the up-turned eaves have their origin in the up-turned branches of the pine trees that grow in profusion along the slopes of the holy mountains discussed above.<sup>28</sup>

In the course of sun worship, the pyramid as a geometric form became the sacred symbol of the sun the world over. It was, however, in the flat country, where a people attempted to recreate their past religious experiences, that the pyramid attained its monumental proportions under a politically minded patesi or a pharaoh. The so-called monumental architecture did not arise before the organization of a powerful sun state whose ruler was worshipped as a God. To construct a pyramid, like that of Khufu, required not only the vast resources of a powerful state but even more so the unquestioned divinity of a pharaoh. Therefore, the great pyramids of Egypt are the monumental symbols of a sun state ruled by a divine pharaoh.

These observations also hold true of the Mayan and Toltec pyramids. They are the only pyramids of any consequence found on this continent. They are comparatively new. Perhaps not one of them will date more than fifteen hundred years back. They are built of rubble and earth and are faced with cement and cut stone. Oriental influence is seemingly in evidence in nearly all of them, especially at Tikal, Copan, and Palenque. Architecturally they are of an advanced type and compare very

favorably with the great monuments of Egypt. And, like the pyramids in Egypt, they too lack architectural antecedents on this continent.

Writers differ as to the origin or origins of the Mayan pyramids. For the lack of better explanation, some, like Totten,<sup>29</sup> think they are indigenous and were evolved on the spot. Others, like Arnold and Frost,<sup>30</sup> are firmly convinced that they are of Malayan and Indo-Chinese origins of the Buddhist period. The last two writers argue that the time interval between the crossing of the Bering Straits and the building of the pyramids is so great that whatever knowledge of architecture the immigrants might have possessed was completely lost and forgotten. In the first place, had they had such a knowledge, and, in the second place, had they kept it up, these writers argue, then surely there should be an archaeological trail, be it ever so faint, leading from Alaska to the Mayan ruins. Such a trail of architectural beginnings, however, does not exist, they conclude, at least not one that would antedate the pyramids of Copan and Tikal.<sup>31</sup> Then Arnold and Frost offer the following solution: The Mayan pyramids were built by Buddhist architects coming from Indo-China, Java, and Ceylon. They came all the way by sea in the early centuries of the Christian era and introduced their specific brand of architecture to the Mayans. In support of their theory they give the following facts: the Mayan pyramids show definite Buddhistic architectural influences, especially those of Copan and Quirigua; a certain stela shows an Indian elephant, another shows a Buddhist lotus (Palenque carving as reproduced by Maudslay). Many other items, such as the altar, betray Oriental characteristics.

We have discussed the views of the last two gentlemen at length just to show that theories, however ingenious, even if backed up by an acceptable array of facts, very often, as in this instance, fall short of their mark. Writers on architecture, on the whole, have not learned as yet to differentiate the geo-



metric matrix from architecture. If, by saying that the Mayan architecture is indigenous, Totten means that the Mayans evolved the pyramid as a geometric form, then we must part company with him here and now. If, on the other hand, he has in mind the native art of building around a geometric matrix as a pattern the Mayans had inherited from their Oriental ancestors, then we are prepared to go a long way with him. And similarly, had Arnold and Frost made the necessary differentiation between a geometric matrix and architecture, they need not have sought so far-fetched a solution. Whatever Oriental influence there may be present in the Mayan architecture, it need not necessarily be of Buddhist origin. Since the lotus cult has been so intimately related with the worship of Mount Kailasa,<sup>32</sup> long before Buddha was even born, no significance need be attached to the Palenque lotus carving other than that of a ritualistic requirement in pyramid worship. In the Ellora temple architecture of Mount Kailasa, the elephant is represented as the reincarnation of the rain God Indra,<sup>33</sup> a cultural enrichment of a more elaborate mountain worship inherited by the Mayans from their Hindu ancestors rather than from any Buddhist cult. As to the absence of archaeological signposts along the path from the Bering Straits to the Mayan pyramids, Arnold and Frost seem to be unaware of the fact that monumental architecture alone will leave such footprints in the sands of time. And, monumental architecture appears in a powerful theocracy only where the ruler either aspires to be, or actually is, worshipped as a God. Sun worship, as we have said before, purely as a religious dogma, can exist without the benefit of monumental architecture, but sun worship as a political system, never!

Whatever the other prerequisites for the founding of a strong political state, the Mayan sun state came into existence with the building of the monumental pyramids. The architectural skills the Mayans had still preserved from their Oriental heritage and the new ones they had acquired on this continent were now

speedily developed and carried to greater perfection. The ordinary looking stone menhir, the crudely thrown-up rock pile now gave way to pyramidal structures built with all the detail and precision prescribed by an ancient, religious custom. Reminiscent of the Hindu and Chinese traditions, all the Mayan pyramids have at least one grand stairway leading up to the summit and the holy shrine.<sup>34</sup> They were built in nine terraces or steps, but some, very likely, were covered with smooth limestone casing.

It was through the medium of the pyramids that the cacique rose from a petty tribal chieftain to the position of a God ruling over a nation. But, unlike the crafty Egyptian pharaoh, the naive Mayan cacique carried the joke of his solar apotheosis too far and brought his empire to a premature ruin (circa 900). Aside from his immediate retinue, consisting of priest-officials and his harem, no subject of his could look at him and live. Evidently in accordance with the general notion that it would not be dignified for a God to walk, the deified cacique, or the Only Inca, never walked but was carried around in a litter like a wooden fetish.<sup>35</sup> The decadent Mayan sun empire was soon superseded by the more realistic Toltecs and the war-like Aztecs.

It may be true that the Mayan culture, like the Old Kingdom culture of Egypt, evolved about the pyramid as a matrix, but the qualifications for such a statement must also be kept in mind. Only one culture can fully evolve about a given matrix, as in this case, the Egyptian culture. At best, the Mayan theocracy was a pseudo-culture, far removed from the centers of man's cultural evolution. Its people had stagnated for many thousands of years in scattered and ineffective isolation. But, what was even more detrimental to its cultural advancement, was the lack of animal domestication. And, as we have repeatedly pointed out, man can only fully evolve to a cultural status through the process of domesticating certain animals.

To think of the pyramid only as a tomb is to misunderstand

its significance completely. Indeed it would be like saying that the cross we plant over the grave is some sort of device to pin the body to the ground, or serve some other equally fictitious purpose. It would be misrepresenting the Christian doctrine, if not history, to refer to Saint Peter's Church in Rome as the tomb of Saint Peter, regardless whether the Apostle was buried there or not. To a sun worshipping people the pyramid served the same purpose as did the human body to the Son of God in Christian theology. A pyramid of the size and grandeur of those of Gizeh is the theocratic symbol of the divinity of the pharaoh on earth.

The more common symbol of the sun is, however, the disc. It is, no doubt, the first geometric form which man singled out for religious worship.<sup>36</sup> Whereas the pyramid is the theocratic symbol of a sun state, the circle, on the other hand, is purely a spiritual symbol independent of the sun state, unless, in the dim, unrecorded past, it was the matrix of a culture. Therefore, the circle or disc enjoys a much wider worship than does the pyramid. The pyramid really is an outgrowth of disc worship, as when a man ascends the mountain top to greet the rising sun. A Vedic sun hymn begins: "Behold the rays of Dawn, like heralds, lead on high The Sun, that men may see the great all-knowing God." The importance of the sun among the ancient Hindus is shown by the fact that no less than some five of their great deities are of solar origin. Thus, Vishnu is the personification of the swift moving sun, and Ushas is that of the Dawn.<sup>37</sup>

In China the "pi," a round jade disc, was the symbol of Heaven. The doctrine of Yang and Yin, the doctrine of the duality of the universe, was symbolically expressed by the circle equally divided by a curved, serpentine line. A circle with the picture of a raven in it was also used as the representation of the sun.<sup>38</sup> The cult of the Gods consisted of the triad: Hou T'u (earth), Hou Chi (plant), and Shang Ti (Heaven, Supreme Ruler).<sup>39</sup> Religious dogma here followed very closely the the-

ological pattern of all other sun-worshipping countries, such as Egypt. Shang Ti was the great Ra, and the Son of Heaven was the Pharaoh. The ruler and the God merged, and eventually, became identical. Both "ti" and "ra" are imperial titles, significant of their sun origins. Ancestor worship, however, is a badly misunderstood sacrament. In solar theology even a humble fellah may become a beneficent deity and the patron God of his descendants. Therefore, in worshipping an "ancestor" one does not pay homage to a deceased parent as such but rather to a solar deity of no mean proportions. The word "tsung" is usually interpreted to mean "ancestor." Yet, during the Han dynasty (206 B.C.-221 A.D.) scholars used it in the original sense, appertaining to the sun or Heaven,<sup>40</sup> clearly a verification of the solar hypothesis.

Japan, being culturally an integral part of China, presents an excellent example of sun worship as it might have been practiced throughout the Orient. Here, however, sun worship as a political system is known as Shintoism. Because of the overwhelming presence of the Fujiyama, the theocratic symbol, however, is not the pyramid, but rather the cone. This fact is reflected in the feminine nature of the Japanese theology. But, as is the case of all solar cults, the disc itself is purely a spiritual symbol.

The American Indian worshipped the sun disc as a God but he did not know it as a wheel. The sun dance of the plains Indians, such as the Cheyenne and Arapaho, was performed on a grand scale as late as the present turn of the century. An elaborate ritual accompanied the progress of the "hehotti," or the sun circle, from the Rabbit-tipi (Arapaho), or the First Lodge (Cheyenne), to the Sweat Lodge, and thence to the Offerings Lodge where finally it was deposited on the altar.<sup>41</sup>

The religious pattern here also runs true to universal form. A prayer is offered to "My Grandfather," the Sun; another to "My Grandmother," the Night or the Moon. The "hehotti" itself



is stained in true solar-cult fashion: red on the inside of the rim, black on the periphery. The entire ritual, however, is complicated by ancient practices and local improvisations, such as the ceremony pertaining to the four cardinal points, the four seasonal changes, snake and thunderbird worship. Like the Chinese "T'ien,"<sup>42</sup> is our plains Indian "Man-Above," to whom a vow is directed. Also, it seems, some bird is universally associated with sun worship, as for instance, the sparrow-hawk in Egypt, the raven in China, and the eagle or thunderbird in America. The same is also true of snakes. Yet none of these supposed departures at any one time and in any one place stray far from the central theme of the sun cult.

The Hebrew name for sun is "shemesh," or poetically, "heres" or "hammah." The initial letters of the names, Samuel, Moses, and Samson, spell "shemesh"—the sun.<sup>43</sup> Names of localities, like Beth-shemesh, En-shemesh, Mount Heres, and Kirheres, are all indicative of wide-spread sun worship among the ancient Hebrews. We read in the Bible that Manasseh, the king of Israel, worshipped "all the host of heaven."<sup>44</sup> The Lord himself accused Israel of sun worship in his own Temple.<sup>45</sup>

In the Mediterranean basin and the adjoining lands to the south, sun worship was not only foreign to the environment and its inhabitants, but was even undesirable. Though the sun may be the source of all life, it was not looked upon with any sense of religious adoration by a people inhabiting the fringes of the Sahara, the Arabian desert, and the arid and semiarid plains of Mesopotamia and Egypt.<sup>46</sup> Anyone familiar with the religious habits and customs of these peoples knows that it was not the sun, but rather the water, the rain, and the plant, that were the chief ingredients of a beneficent deity. In early Egypt (Paleolithic) these concepts crystallized themselves into the worship of the great and most ancient God Osiris. Appropriately enough, he was represented, symbolically to be sure, by the cylinder in the form of the trunk of a tree, but more often, by a bundle of

papyrus reeds neatly held together by five astragal cords. He was very often identified with the Nile. "Thou art indeed the Nile," speaks Rameses IV to Osiris, "great on the fields at the beginning of the seasons; gods and men live by the moisture that is in thee." Or, quoting a priest from the Pyramid Texts: "The lakes fill, the canals are inundated by the purification that comes from Osiris."<sup>47</sup>

Keeping in mind these natural factors of Egypt and the trend of her religious thought, some of the hymns dedicated to the sun have, indeed, a foreign and, in fact, to an Egyptian, an entirely incomprehensible tone and meaning. A verse, among others, inscribed in the sun temple of Abusir, pays this foreign sounding tribute to the Sun God: "Thou hast driven away the storm, and hast expelled the rain, and hast broken up the clouds."<sup>48</sup> This in a country where people were constantly praying for rain! Many of these sun-hymns, like their Sun Gods, have come great distances from a land that must have been quite different from Egypt.

The question may well be raised as to how and why the worship of the sun took such a hold on a people so inhospitable to this sort of practice as were the Egyptians. We may parry the issue by saying that Egypt proved no exception to the universal expansion of sun-worship over the entire surface of the earth. How Egypt came to be one of the greatest sun empires the world has ever known is a story sorely neglected by both the Egyptologist and the historian. First of all, aside from certain geographical considerations, it is the Egyptians themselves who contributed most to the political success of their sun state. These indigenous people of the Nile Valley must have possessed certain racial traits that stood them in good stead in the face of invasions, immigrations, and infiltrations by foreign tribes from whatever source. That there were early cultural contacts between the Near and the Far East is no longer a question for debate. Students of early peoples speak of migrations and invasions,

over an extended period of time, across the Anatolian plateau, the Caucasus, and Iran, into Mesopotamia, and from there into the valley of the Nile. Prehistoric graves in Egypt reveal a foreign people akin to some surviving specimens of India and Ceylon whose burial rites were similar to those still practiced in some parts of Tibet.<sup>49</sup> The Sumerian pottery at Tepe Gawra (northern Assyria) bears more than a passing resemblance to that of the ancient Chinese. Other excavations, such as those of Harappa and Mohenjo-Daro, likewise attest a lively intercourse between the city states of the Indus and the early Sumerian cultural centers. At Nineveh, in the ruins of Sennacherib's palace, was found a bas-relief of a typical sikhara bamboo shrine sacred only to the Hundus.<sup>50</sup> The Orientalist Waddell, declares that Naram (Horus N'Ar), the conqueror of Lower Egypt, was, like his father, Menes, a Sumerian king. He points out, in support of his unorthodox views, that the pictographs and inscriptions he was called upon to decipher on the well-known Naram's victory palette, were Sumerian both in script and language.<sup>51</sup>

Ideas coming from the Far East were first put to the acid test of practice in the buffer state of Sumer, whence they made their way to the happy valley of the Nile.<sup>52</sup> Every indication points to the conclusion that religious and political ideas reached Egypt in a comparatively advanced state of development, a seeming advantage not overlooked by the alert pharaohs. The legend of the death of Osiris marks the beginning of sun worship in Egypt. It was fostered by the new ruling caste in an effort to undermine the old Osirian faith and replace it with the Machiavellian creed of the sun. According to this legend, Osiris lost an eye—if not something even worse—and suffered death at the hands of his own brother Set, a weakness usually associated with mere mortals. Through the loving care of his sister-wife, Hathor, and the help of his son, Horus, but even more so, through the good offices of the Golden Ra himself, he

was brought back to life once more, only to be relegated to the nether world, of which he now became the undisputed ruler. This, in brief, is the source of dispute, both religious and political, that came to plague Egypt during her long life. Historians and Egyptologists are wont to refer to it as a theological quarrel, though in reality it was a life and death struggle for power between the sun-worshipping ruling class and their Osirian subjects.

Sun worship, then, came to Egypt primarily through conquest as it possesses certain Machiavellian qualities that go with an efficient and stable form of government. The outward symbol and manifestation of this theocratic phase of sun worship is the pyramid, not the disc, as was pointed out above. However, there is no lack of instances of the sun disc as a spiritual emblem in Egyptian culture. Any solar deity, be it Hathor, Serapis (the bull), or the pharaoh, may be conveniently identified by the sun disc.

In the desert, the arid, and semi-arid countries it is the sky, rather than the sun as such, that dominates the landscape. By night it is alive with stars, pulsating points of bluish light, weaving eternal patterns. The dead, reflected glow of the moon deepens the mystery of the night and casts a magic spell over the earth. Astrology is the record of how man reacted to these eternal, dynamic stimuli. The twelve signs of the zodiac, it is said, originated in Babylon. Here also the Moon God Shin outranked the Sun God Shamash. The Hebrews, the followers of Yahveh, a Sun God, in spite of all the injunctions of their prophets, continuously lapsed into moon worship.<sup>53</sup> This is characteristic of all Near Eastern regions. In Egypt, the story of creation begins with the earth and the sky. They are lovers lost in the Dark Waters of Chaos (Nu). On the day of creation a new God, Shu, the atmosphere, came forth from the primeval waters (Nu) and slipped in between the two. He seized Nut, the Sky, and lifted her above his head, with his finger-tips barely touching



the breasts and the pudenda, while Geb, the Earth, lies prone at his feet. In this arched-over position, Nut is pictured as the star-studded sky-dome, with her hands and feet touching the earth.

In India the hemisphere is closely associated both with sacred royalty and funereal rites. Such associations are a sure index of the divine nature of the hemisphere. The case indeed is very similar to that of the Egyptian Pyramids. But neither the hemisphere nor the pyramid is any more the symbol of death than is the Cross in Christendom. Although archaeologists usually identify the "stupa" as a relic mound and as a tomb of Aryan kings, it was sacred to the Hindus of Vedic tradition and beyond. It is somewhat dramatically but misleadingly identified as the Siva symbol of death. This would be like calling the Cross the symbol of death. All these are oversimplified and perverted notions of people not initiated into the mysteries of the respective cults. Both the Jains and the Buddhists took over the "stupa" idea from the Hindus and adapted it to their own peculiar modes of worship. They usually surmounted it with an umbrella or a pyramidal tee, symbolical of Vishnu's tree of wisdom. It is said that the great Emperor Asoka (272-232 B.C.), an ardent disciple of Buddha, built many thousands of such stupas in his short lifetime. Of the many that still remain those of Bharaut and Sanchi are the biggest and best.

The hemisphere is also a familiar form in Christian iconography. Though it no longer represents any one deity in particular, it is the universal symbol for Heaven. The Holy Trinity—Father, Son, and the Holy Ghost—is usually framed within the star-studded sky-dome. In fact, the whole divine hierarchy, from saints and angels to archangels, is seldom portrayed without the hemisphere, often symbolically represented by the arch or the semicircle.

The hemisphere is a culturally rich matrix of the worship of the Mother Goddess. She is often pictured with her mature,

full, and often over-sized breasts cupped in her hands, or, with one hand on the breast and the other touching the pudenda. The breast of the mother is the symbol of compassion, tenderness, and infinite care. The brief renaissance of Egyptian culture during the New Kingdom is best portrayed by a homely scene between a mother goddess and a king. The Goddess Anukis with motherly care and infinite grace gives her breast to Rameses II (reigned from 1300-1230 B.C.), the bashful, young pharaoh. In the Madonna or Mary cult the open breast is similarly displayed as the symbol of grace and divine compassion for a fallen and distraught mankind.

In Christian iconography, sacred vessels and other holy objects are nearly always represented by the geometric form, or, as a combination of geometric forms. Thus, the ostensorium or monstrance, containing the consecrated host, is shown either as a sunburst (seventeenth century, Spanish), or circle (modern, French); the censer—either as a small pyramid or cone; the baptismal font—as polygonal prism, in combination with the hemisphere. The church spire is either a pyramid (of four or more sides), or a cone. Both of these forms are usually in various combinations with the prism and the cylinder.<sup>54</sup>

And so are the Jewish Habdalah spice-boxes usually represented by the geometric form. Habdalah, means separation, separation between the holy Sabbath and the workday. It is marked by appropriate religious ritual, such as prayers and the passing of the spice-boxes breaking the fast. It will be found that these “boxes” are predominantly in the shape of prisms, spheres, pyramids and cones. They occur most often in the following combinations: cone-cylinder, prism-pyramid or cone surmounted by a spherical finial.<sup>55</sup>

From the evolutionary stream there emerges a purely abstract geometric form. Its properties, refined in the crucible of human experience, are now succinctly expressed by a mathematical formula. Such a formula is not unlike a statement of dogma in

a theological system expressing the attributes of God as seen through revelation and forged in the flames of experience. To say that the geometric form was invented by some great mathematician is like saying that some clever theologian invented God and expressed his attributes by a formula known as dogma. The story of the geometric form, like all systems of theology, is the story of creation: how man emerged from the ocean of unconsciousness to the surface and light of consciousness; how from unconscious fetish worship of the reed bundle, the palm tree, man came to construct consciously the stone column and the steel propeller shaft and reduce its proportions and properties to mathematical laws and formulas.

## CHAPTER 10

### *Sun Worship as a Political System*

In our general consideration of the sun disc, we were unable to elaborate on the political aspects of its worship. This phase of worship is little understood, especially as a theocratic system. In order to bring out its most salient features, we are confining our remarks largely to Japan. To support or illustrate our argument we shall draw upon verifiable, historical facts of various other countries.

“The Mysterious East!” is a familiar description of countries like India, China, and Japan. This phrase is also commonly found in books of travel, either to entice the reader and play on his fascination for the mysterious, or, at times, it is a genuine confession of failure on the part of the author to understand the Eastern peoples. Others, however, more scholarly and less romantically inclined, have made serious studies of the various fundamental phases of life common to all mankind, such as religion, history, economics, politics, and sociology, so as the better to compare the peoples of the Far East with those of the West. Some of these scholars became so thoroughly grounded in their subject matter that they became acknowledged authorities in their particular fields of study on the Mysterious East and often taught at its institutions of higher learning. These scholars, furthermore, were often matched and even surpassed by native talent, and exchange professorships became increas-



ingly numerous. The native scholars, however, were themselves the products of western culture, who had studied their own past through the eyes of the West and through the machinery set up by our universities.

According to this westernized procedure it was an easy matter to understand and explain the Japanese people. Japan, of course, according to the western or westernized historian, was a constitutional monarchy. In other words, it was a government by law and not by man. Its religion was either a quiescent form of Buddhism or a simple pantheistic creed, called Shintoism. That was all there was to it. Of course, there were certain peculiarities, such as Emperor Worship and, what some people prefer to call, ancestor worship. But these were considered as a quaint and harmless custom that delighted the heart of the tourist, as well as that of our diplomatic representative in Tokyo. The historian politely laughed off the Japanese version of the sun origin of the emperor and of the Japanese people as a whole. In this they were aided by Europeanized Japanese whose aim was to place their small and primitive country on an equal footing with the western powers.

In Shintoism, however, our scholars ran into something that hardly made sense to the western mind. The Europeanized Japanese, to be sure, went to their aid and glibly explained away all suspicious peculiarities with an ample dose of meaningless, western verbiage. Some Japanese, however, were honest enough to tell the truth. "The Emperor," so said Professor Kato Genchi, "is incarnate Deity, and occupies in Japanese faith the position which Jehovah occupied in Judaism." But his European or Europeanized colleagues did not take him seriously. Apparently no satisfactory explanation of Shintoism has as yet been given either in a European or Europeanized Japanese version. The real stumbling block to an understanding of Shintoism is the concept of Sun Worship, which the European scholar either completely ignores or vastly underestimates, and one which the

Japanese won't admit. Yet Shintoism can only be defined in terms of Sun Worship. In fact, it is Sun Worship set up as a Political System. In this respect, at any rate, our modern historians, indeed, have been very unobservant. Hardly one of their many books will contain as much as a mention of this most potent political factor in Japan. Yet Monsignor Vay de Vaya, who traveled some fifty odd years ago through Japan, explicitly states that Shintoism is a cult of the sun.<sup>1</sup> Speaking of their many shrines and chapels, he writes: "The only conspicuous object in them is the symbol of their deity, a smoothly polished metal disc, representing the sun." Now, of course, we hear a great deal, though somewhat belatedly, about Emperor Worship from our journalists and diplomatic representatives. The credit, however, for bringing to light this secret weapon of Japan, does not go to these gentlemen of the press and government, but rather to our soldiers who had to learn the hard way at Tarawa and Saipan the terrible meaning of Emperor Worship.

Emperor Worship, however, is nothing but the political aspect of Sun Worship. Without it Emperor Worship simply does not exist. History won't show a single instance where Emperor Worship by itself has functioned as a political system. Invariably, without exception, it is either the immediate or the more or less distant political aspect of Sun Worship.

Now, Sun Worship is not entirely unfamiliar to the western historian. It was practiced in one form or other by the American Indian, especially in Mexico and Peru. It was the state religion of Egypt and it was known also in China, or the Far East in general. But what the historian has failed to grasp is Sun Worship as a Political System through which alone the long dynastic history of Egypt and that of China can be understood. This Sun System permits, if not demands, that the head of the state be a God, a Sun God. Aside from the Egyptian pharaoh, with whose deification we are only too familiar, ambitious rulers, throughout the ages, have aspired to the solar apoth-

eosis as the most effective instrument of suppression and self-perpetuation in power. Alexander the Great made a long and difficult journey to the oasis of Amon, in the western desert, to ask the Egyptian priest there to proclaim him as the son of the great Ra. And so did the Roman Caesars, like Octavius Augustus, think of themselves as solar deities. Louis XIV of France was known among his sycophant courtiers as *Roi Soleil*. Even Napoleon, when at the zenith of his power, must have had these political sun benefices in mind when he bemoaned his unhappy lot to rule over a people and at a time when even a fish-peddler's wife would laugh him off the street, were he to proclaim himself a God.

What then are some of the characteristics of the sun state? First and foremost, the ruler is everything. The saying, "*L'Etat c'est Moi*," attributed to Louis XIV, is literally true of the sun king. It does not matter in the least, that in many instances he is nothing but a puppet in the hands of his war lords and is doing the bidding of his advisers, for they can act through him and in his name only. The king is not, as one might imagine, a mere representative of a God, or the incarnation of some lesser deity, but rather he is the chief God himself in person. Thus, in Egypt, at the period of the great pyramids, the pharaoh passed for the Golden Ra himself, Egypt's greatest God. While the spiritual emblem of the sun king is the sun disc, his political standard of him as a ruler of a nation on earth is the mountain or the pyramid. In mountainous regions, such as the Himalayas and the Andes, the residual mountain peaks served the purpose. In a flat country, such as Egypt, Mesopotamia, and Yucatan, this standard had to be artificially constructed in imitation of a mountain peak, from which the high priest could scan the horizon on which the Golden One was to appear. The volcanic cone, being distinctly a female deity, cannot serve as the political standard of the Sun God. The Japanese, therefore, living

as they do on volcanic islands, do not trace their descent to a Sun God, but rather to a Sun Goddess whose political standard is the sacred Fujiyama. According to Japanese historians, the present emperor is the direct descendant of this deity whose mirror, jewel, and sword, still constitute his imperial regalia. The sun disc in Japan, as it was the case in Egypt, is not a political, but rather, a spiritual emblem. Consequently, the Japanese soldier's oath of allegiance is not to the rising sun of the flag, but rather direct to the emperor. A state so constituted is the most formidable and sinister political and military machine ever devised by man. Absolute obedience to the state is not only a political, but even more so, a religious obligation. A sun subject who permits himself to be taken in battle alive betrays not only his emperor—his God—but also his own divine birthright. To drive home more forcefully the sinister nature of the religious, political, and military setup in Japan, let it be pointed out once more, that the Mikado is considered by his soldiers as a God of the magnitude of Jehovah of the Christians and the Jews.

This then is the "secret" source of the suicidal fanaticism of the Japanese soldier. By dying for the emperor he simply returns to his solar ancestors and, like them he too becomes a solar deity of no mean magnitude. What the Japanese soldier is like once he is stripped of his solar myth is amply shown by the following excerpt from an army report:<sup>2</sup> "In the line on equal footing with their white comrades on their right and left flanks, the Japanese-Americans are winning the complete confidence of other American troops, who praise their fighting qualities and, at the same time, emphasize that they do not show any of the ferocity demonstrated by enemy Japanese in the Pacific."

One's strength often proves to be one's weakness, goes an old saying. This, indeed, is true of Japan. If the emperor is her military strength, he also proves to be her Achilles' heel. Anni-



hilate the Sun God and his immediate descendants and the whole structure will collapse like the proverbial house of cards. In so doing you not only destroy their king but their God as well. The soldier's oath of allegiance to the emperor now becomes without a meaning. The very thing that he was fighting for, dying for, no longer exists. We must also remember that a sun soldier does not fight or die for his country but rather for his emperor. The law of succession operates at the natural death, or even assassination, of the emperor, but it will not function in a catastrophe that would ensue were the Sun God destroyed by an enemy power.

In the past, two distinct techniques were used to overcome a powerful sun state. In Egypt and China the method invariably consisted in replacing, by force of course, the incumbent Sun God by another Sun God. This sort of conquest causes the least upheaval in the country, and its historical continuity remains seemingly unbroken. Thus China, though conquered by the Tartars, the Mongols, and the Manchus, retained, to all intents and purposes, her political and religious identity unimpaired for hundreds if not thousands of years. Similarly Egypt owes her long political life to this method of subjugation. She had been conquered by various peoples, as for example by the Shepherd Kings, known as Hyksos, the founders of the XV and the XVI dynasties. Yet Egypt retained her political identity for one of the longest periods on record. Japan only recently was applying this method of conquest in Manchuquo by setting up a Manchu prince as a "Son of Heaven," in the hope of reviving Sun Worship in China. This, however, does not constitute a favorable test case for the efficacy of the method, for the simple reason that the long decadent Sun Empire of China had already been overthrown by the Chinese themselves and replaced by a state modeled upon European principles.

The prerequisite to the success of this method is that the

conquerors be sun worshippers themselves, or at least, be willing to become one, so as to replace the incumbent Sun God by one of their own choice.

The other method that has been successfully applied in the past, consists in the complete destruction of the sun state by destroying its Sun God. This means that its political identity and its historical continuity are brought to an end and placed beyond the hope of revival. This is the case when the conquerors are not a sun worshipping people, as for instance the Spanish conquistadors, who were Christians. In other words, under these circumstances, the deposed Sun God is not replaced by another Sun God. The practice in the past has been to avoid open battle with the sun troops and capture the Sun God by ruse, if necessary. When this happens, the whole military machine disintegrates like a bee hive without a queen. In this way Francisco Pizarro conquered the whole of Peru. With a handful of men he bravely rode into the Inca camp of some hundred thousand or more well armed soldiers and with a bold stroke of treachery captured the Sun God Atahualpa. This was not only the end of Atahualpa but also of the whole Quechuan army and the Inca Empire as well. Pizarro had learned his strategy from Hernando Cortes, the conqueror of the Aztec Empire. In fact, Cortes might be considered the originator of this system. The course of Cortes' conquest did not run as smoothly as that of his disciple, Francisco Pizarro. He encountered considerable opposition, both diplomatic and military, before he could reach and capture Montezuma, the Sun God of the Aztecs. This also marked the end of Montezuma and his empire.

The lesson we can learn from these two classical examples of historical magnitude is that a Sun Empire is only destroyed as a Political System when and only when its ruling deity is destroyed. Had Jimmy Doolittle, with his intrepid flyers, released the combined bomb load on the imperial palace and

wiped the whole royal family out of existence, the possible results simply stagger the imagination. Had this happened, there is no question that the Japanese military machine would have collapsed according to the well known pattern of any other sun state in a similar crisis in the past.

## CHAPTER 11

### *Man*

Man emerged, then, from a state of nature to one of culture through the instrumentality of the primary geometric form, which he by divine necessity had singled out for religious worship. While man knew the geometric form only as a godform and not as a machine capable of doing some practical work, his material mode of life could not have been different from that of other animals. Only as he began to put these godforms to some practical, useful end, did his material lot improve, or at least take on a different turn. This sort of transition can still be observed among some primitive peoples, such as the bush Negroes of Dutch Guiana. Here the cylinder is partially in the fetish stage as an idol (tree trunk) and as a sacred drum, the "ageedah," and partially as a machine gingerly supporting a ramshackle roof. Only after man had gained in culture and self-consciousness could he have regarded himself objectively as a form external to himself. The earliest instance of this awareness is the singling out of himself as an object of worship.

Early man is often portrayed as an idiot-philosopher, one who philosophizes over his own foot-tracks he leaves in the sand and is puzzled by the scratches he makes with his stick on the ground. As a matter of fact, man never did start from a scratch. He started with the whole thing and nothing but the whole thing from the very beginning, however crude the technique. Here we



do not mean man in general but rather a mutant form in particular, one through whom the faint, inarticulate, hopes and fears and yearnings of the whole race come to expression. Instead of a footprint or a scratch in the ground, he started with the whole concept of God. It might have been only a crude stick, a rough stone, or, the hoof and horn of the animal he had killed, but in every case it was a vicarious representation of the whole deity. Symbolism alone could express the unutterable, the always elusive, eternal constant. Man took to self-representation in the manner he evolved articulate speech. In fact, it is very probable that the art of representation in general and speech in particular grew side by side, more or less simultaneously. Both are closely related modes of expression. To give another man or beast the "numen" was to control him, to have his "image" was to possess him.

Man is variously distinguished and differentiated from animal. According to Christian dogma, the decisive criterion is his soul: man has it, animal does not. This, being but an article of faith, is not universally honored by peoples of other cultures. Thus, the Hindus would hardly subscribe to such an unorthodox doctrine. All ancient cultures, such as the Babylonian, Egyptian, the Chinese, had raised certain animals, what are now known as our domestic animals, to the status of cultural deities. The Hebrews broke, time after time, their covenant with Yahveh, to worship the horse, the bull, and especially the calf. All the sacrificial animals, i.e., domestic, were, at one time or other, deities of cultural magnitude. The lives of Christian saints are intimately related to those of animals. Count Hubert of Aquitaine became Saint Hubert when he saw the holy stag bearing between its horns the cross upon which hung the figure of Christ. Saint Giles was kept alive in his cave at Nimes by the milk of the sacred white doe. Saint Francis of Assisi talked and preached to the birds, whom he called, "his little sisters." When he preached in Osimo, he had a lamb standing beside him. And

indeed, all beasts, including the fierce wolf of Agobio, became his converts who lead exemplary, Christian lives.

Therefore, it is somewhat difficult to reconcile such an arbitrary dictum, that animals do not have souls, with the cultural antecedents of our domestic animals in particular.

Another criterion, equally academic and arbitrary, is the intellect. Man thinks, animal does not. A philosopher-wit restated this more aptly, and certainly more correctly, when he said: man seldom thinks, animal—never. Naturalists and psychologists, however, will hardly subscribe, at least not so without some interpolation, to the dictum that animals do not think. They will point out that certain species, such as the chimpanzee, or the great apes in general, the raccoon, and the coyote, show definitely the ability to “think.” This sort of “thinking,” of course, measured by Dewey’s rigid standard, would hardly pass for thinking any more than among human beings. But be that as it may, it would seem, no decisive differentiation can be made between the average human being and the higher animal species on the basis of intellect.

A corollary to this intellect criterion is the struggle for existence, survival, theory, made popular by Charles Darwin. It is but another version of the much quoted cliché that necessity is the mother of invention and discovery. Man, hard pressed by competition in the struggle for existence, resorted, by accident or deliberation, to such unethical, extrovertial, supernormal agencies as, fire, clothing, tools, and weapons. According to this survival theory, man would have perished had he not been saved, in the nick of time, by Mother Necessity. Why nature should have been so partial towards man, is hard to understand. She had permitted many species to die out without apparent regret. Rather than have man take up the challenge to survive, nature herself aided and abetted him in his flight from the state of nature to one of culture.

In science a species is identified by its properties. In the

case of man, however, scientists have deviated from this standard procedure and omitted, purposely or unwittingly, one of the most decisive characteristics of man that alone differentiates him from animal. This characteristic is his religiousness. No man is known without it. Archaeological findings may tell little, if anything how man lived, but they tell a great deal how he worshipped. We know nothing about the people who built the Stonehenge, except how they worshipped. The recordings and interpretations of archaeological findings read like books on theology. The archaeologist, indeed, may pass for a theologian of ancient cultures. Religion is the key to them all. Though the so-called scientific historian is dependent upon the archaeologist for his facts and information, rarely does he take notice of the religious complexion of the culture he claims to be an authority on, for fear of losing his pseudo-scientific status. Likewise the anthropologist and the ethnologist steer clear of man's religious nature, lest they be taken for charlatans by their learned colleagues. They dismiss man's religious nature as some artificially cultivated vice—superstition they call it—engendered in fear and ignorance. They tell how man departed from the state of nature to one of culture by the curious combination of chance and intellect. To keep warm and frighten other animals away, he discovered fire. Also for warmth he invented or discovered (animal skins) clothing. And to take unfair advantage of other animals, as well as of his unsuspecting colleagues, he invented tools and weapons.

Now, all this is very, very mysterious. What possible occasion could there have been for man to desert the state of nature for one of culture? What possible urge could there have been for him to resort to such supernormal agencies as fire, tools, and clothing? Are not warmth, protection, shelter, food, needs shared by all animals? There can be no possible demand, no felt need for goods that do not exist, i.e., before they are invented or discovered. And, even after they are invented or

discovered, there still is no demand or need for them until a time the prospective customer is thoroughly familiar with and accustomed to them. But, what is even more important to remember, is the fact that no invention or discovery of first order can take place without its religio-cultural antecedents. It is a non-utilitarian period of cultural assimilation of long duration. In the case of the geometric forms, such as the sun disc, such a process of photoplasmic assimilation might well have gone on for close to a million years before they could be put to work as machines. Some people of recent history, like the American Indian, had not as yet completely emerged from this assimilative stage. He worshipped the sun disc as a God of cultural magnitude but he did not know it as a wheel. The sun dance of the plains Indians, such as the Cheyenne and Arapaho, was performed on a grand scale as late as the present turn of the century. In an elaborate ritual the "hehotti," or sun circle, was carried through the various ceremonial lodges in its processional to the altar.

To speak with contempt of man's cultural worship of certain inanimate things, such as the geometric forms, certain animal forms, such as our domesticated animals, and the human form, as base superstition born of fear and ignorance (Spinoza's own words), is to misunderstand man's cultural evolution completely. Has it ever occurred to these people that it is this very religious property (Spinoza concedes this as much), derogatorily referred to as superstition, that has determined the course of man's evolution and created the world of form we live in? Can we conceive of another world different from ours? This world of ours, this world of form, consists of some seven geometric forms, about the same number of animal (domestic) forms, and the human form. These are the bricks of which man's culture is made. They are the warp and the woof of his habitat. About and through these matrices he evolved his culture. And, lest we forget, man singled out and selected these



matrices from nature through a process, derogatorily referred to as, superstition.

The human form undoubtedly is the most familiar and the most eloquent of all the universal forms. It possesses the quality of position, freedom of movement, and the universal language of gesture and facial expression. Though itself static of form as a whole, the body houses the esoteric mysteries of the brooding, indwelling spirit whose nuances it reflects. The human form, however, as a nature form, exists only in the abstract. Man knows himself as a cultural form only. He is seldom known without a dress. And dress is distinctly a local and, besides, a short-lived fashion form. The human form, swathed in the covering of a certain locale and of a certain period, loses some of its universality and partakes of certain qualities that we are wont to associate with provincialism. The nude is also rarely known out of its locale. And even there it is known only as a furtive, clandestine figure, seeking refuge in solitude. One catches a glimpse of the nude through a peep-hole, so to speak, in the curtain of taboos. The nude is supposed to create the illusion of a form in transition from the cultural to the natural state. The illusion, however, soon vanishes as we perceive at once certain earmarks of taboos and of other cultural vestiges characteristic of the human form in culture.

Whereas the geometric matrix is simple, and hence can be rigidly defined, the human form, on the other hand, is complex and difficult to define. Therefore, the chief contribution that the Greeks made to sculpture is that they created a human identity in diversity, simple and, like the geometric form, definable. It is measurable. Its changes are predictable. As in the case of the geometric form, its variations are limited. The mask of the identity shows no signs of emotion. Yet, it is not the mask of death but one of life eternal. The whole body radiates a spiritual quality of repose and eternal stillness. Yet, it is not the funereal stillness of death but rather the stillness of the Elysian

fields. The whole body matrix in motion gives one the feeling of a gliding gait. Sex is almost negligible, and, in some instances, completely absent (e.g., Apollo and Bacchus). Smooth bodies with little or no muscle, is the rule. While male identities appear in the nude, females—hardly ever (even Venus is partially draped). Nearly all goddesses, including the promiscuous Aphrodite, are represented as virgins. Their breasts are small, and, as it behooves a virgin, no nipples are shown.<sup>1</sup>

The earliest instances of the human form in representation, so far found, are two female statuettes in the round. One of these, sculptured in porous limestone, was discovered in the loess of the Aggsbach valley, Lower Austria, near the village of Willendorf; the other, carved in ivory, in Southern France, at Brassempouy (Grotte de Pape). Both of these belong to a period of the Palaeolithic Epoch, known as the Aurignacian period, placed anywhere between 16,000 and 25,000 years ago. Aside from our hypothesis that man's earliest representations of the human form invariably portray deities, these two statuettes bear all the earmarks of a mother Goddess. Judging from the fancy hair arrangement of circular frisettes of the Willendorf Venus and the gracefully shaped back of the ivory carving of Brassempouy, the artist evidently portrayed them with studied crudeness according to symbolic requirements. The huge breasts, the fat, shapeless hips, the bulging belly, and the prominent mountain of Venus, are all typical signs of a primitive deity. We do not, however, here imply that they are necessarily fertility Goddesses in the sense we later find them at the agricultural and domestic animal stage.<sup>2</sup> A Mother Goddess, according to early concepts, is an all-embracing, an all-inclusive mother by and through whom a tribe lives and has its being, be it by agriculture or hunting. "Care is the root-feeling of future, and all care is motherly," writes Oswald Spengler.<sup>3</sup> Her breasts nourish her children; from her belly they issue forth, first to life on earth, then, to life after death. Many primitive people buried

their dead in huge funereal urns, like kernels in their shell, symbolical of the pregnant pot-belly of the mother Goddess from whose womb they will be born again.<sup>4</sup> They are the divine matriarchs of the tribe.<sup>5</sup>

Another early representation of the human form is found in the mural painting in the rock shelter of Cogul, Lerida, Spain. It is placed in the Magdalenian period (12,000-16,000) of the late Palaeolithic Epoch. It shows nine partially clothed females surrounding a nude male. This scene depicts a dance or some other ceremony pertaining to initiation of some creative ritual. The figures are slim, stylized, and very sketchy. The man may be identified by his exposed phallus, ungainly of size and drooping. It is an unusual picture for this period in that it includes a man and that the women wear clothes. In fact, this is the only instance so far known in Palaeolithic art where clothes appear at all.<sup>6</sup> The representation here is more symbolical than actual, a version of the orgies ascribed to Witches' Sabbath. The female figures, with their long, pendant breasts, are suggestive of Hot-tentot and Bushman art. But be that as it may, apart from a religious motive, the whole composition at this early period would be without a meaning.

Whatever uncertainties there might be about the exact status of the earliest representations of the human form cited above, these are completely dissipated as we approach a period much closer to our own. The clay figurines exhumed, for instance, at Mohenjo-Daro (Indus Valley), are very much like the Willendorf and Brassempouy madonnas: a grotesque galaxy of Mother Goddesses. This fantastic art among all early peoples is characteristic of their figurines representing a deity. Even today the bush Negroes of Dutch Guiana, though excellent woodcarvers, represent their deities with studied crudeness.

The representation of a deity by the human form, however, was and still is universal. The earliest Hindu representations of Siva show the great "destroyer" in human form. Also Vishnu,

the second person of the Trimurti (trinity), appears as Buddha in his ninth incarnation. And so were Osiris and Isis of ancient Egypt usually portrayed as man and wife. In prehistoric times the nomarch, the head of a nome, was worshipped as a God throughout the Nile Valley.<sup>7</sup> It was, however, in the period between 1700 and 1300 B.C. that this sort of worship in Egypt reached its height. In his dual capacity of a God and man, the king often worshipped himself as a God, either praying or thanking for gifts he wished to receive or had so already received.<sup>8</sup> These observations would seem to corroborate Professor Dennert's statement regarding the Willendorf and Brassempuoy statuettes that they are the divine matriarchs of a hunting people.<sup>9</sup> In Christianity, God, the Father, is still portrayed as a Hebrew patriarch with a full, flowing beard, and his Son, Christ, as a well-groomed, itinerant ascetic. In Christian iconography Christ is understood under the symbol of the cross.

In Greece the human body was a godform and the measure of all things. Aristotle could not envisage a polity without personal, body contacts. His was a sovereign republic of less than fifty thousand people, the size of an overgrown American town. Plato, for all his detached world of Ideas, proposed in his Republic to rear a race of supermen by selective breeding. Symbolically it would resemble a beautiful body with a philosopher-king, more just and wise than any of their Gods, for a head.

What architecture was to the statue, was poetry to the living human form in the world of the ancient Greeks. The ethereal yearnings, longings of the Christian West were unknown to the Greek. His spirit soared no higher than Mount Olympus where dwelt the immortal Gods. And beyond that no man can go. His deities were so embedded in the human body that he could not worship the one without doing religious homage to the other. Gods and men intermingled with a familiarity that often bred contempt. Gods lived and fought alongside men as allies and



took sides with them in their quarrels. From this comradeship sprang an epic poetry as full-blown and corporeal as Pallas Athena from the head of Zeus. Here poetry celebrates the coming of age of a godform whose crude beginnings we already caught sight of in the Palaeolithic Epoch. The human form has reached its maturity and has become the matrix of a culture.

People write and speak of Greek temple-architecture as if it enjoyed existence independent of the statue. This indeed was the case in Egypt where the plant column, as in the Hypostyle Halls of Karnak and Luxor, was a self-sufficient unit: the focal point of the temple. But not so in Greece. Whatever intimacy both the statue and the column had enjoyed in their infancy,<sup>10</sup> here the column no longer can exist without the statue. In fact, the statue may well replace the column as would the Caryatides of the southern porch in the Erechtheum. At any rate, the primary function of the Greek temple was to enhance the human form and to display it with dignity and to advantage.

#### Quotations:

Plato: "... not the true proportions, but those which seemed to the imagination most beautiful were given to statues of the divinities."<sup>11</sup>

Spengler. "There is nothing more impersonal than Greek art."<sup>12</sup>

Walter Pater: "Greek art when we first catch sight of it, is entangled with Greek religion."<sup>13</sup>

Goethe: "Man is the highest, yea, the only proper subject in creative art."

When man existed as a nature form it is safe to presume that cohabitation was purely the periodic act of procreation. In culture, however, man cohabits in and out of season merely to gratify his senses rather than to procreate. In this peculiar turn of cultural evolution, the phallus of the man and the breasts of the woman became more and more personalized and were regarded almost as forms apart from the human body. How

man came to single out these forms for religious worship is a question that has a bearing on the mysterious origin of man himself. That the generative forms were worshipped as deities themselves is no longer a matter for debate. But what is a matter for debate is the way he selected them and the way this selection affected man's own evolution. The earliest notice of this selection is found in religious writings, as all ancient writings invariably are. At the time of these sacred writings, phallic worship, in many instances, had already passed its peak and had become a decadent practice and against whose abuses the "prophets" never tired to inveigh. It was when the priestesses or "virgins" of the temple performed no longer the act of cohabitation as a sacrament for the upkeep of the temple and had become promiscuous with strangers for their own pleasure and personal profit, that the "Lord God" waxed wroth over the perversion.

Evidence from sacred Books, then, would seem to show that the reproductive forms, both male and female, were first singled out for special consideration by a divine necessity rather than by any gross desires for sense gratification. In other words, cohabitation for purposes other than reproduction, originally was performed as a sacrament. This indeed is the normal process in all form culture. We are not, however, here prepared to say whether or not this divine necessity in man sprang originally and only from a sexual impulse not only to procreate but also to create.

Even if such a hypothesis should prove to be correct, we cannot, as many authorities on phallicism do, endow the reproductive forms with the full variety and gamut of geometricity. According to these writers practically all uprights, such as pillars (prism, which the Greeks called *Herme*), columns (cylinder), spires (either a cone or pyramid), pyramids, obelisks (pyramid and prism), are all phallic symbols, or at least forms that had their origin in phallicism. Similarly cones, hemi-

spheres, and even the equilateral triangles are, according to them, derived from the reproductive forms of the female. In other words, everything that makes up the paraphernalia of the habitat of man as a cultural being, is the outcome of phallic worship.

To such an uncritical generalization, however, we cannot subscribe. In most instances the phallus is not worshipped as a form apart from the human body. Thus, Khem and Osiris of the Egyptians, Siva of the Hindus, Vul of the Assyrians, Pan and Priapus of the Greeks, Mutinus and Priapus of the Romans, are often represented in human form with their phalli erect in eroticism. Although Priapus is occasionally portrayed by a detached phallus, still he is largely thought of as a God in human form. He is traditionally and variously regarded as the son either of Dionysus and Aphrodite, or, Adonis and Aphrodite.

Phallic symbols, of course, exist in great profusion even to this day, but always as a combination, as they necessarily must. Now, a combination, say, the cylinder and the hemisphere or the cone, is the index of an advanced culture if not of a civilization. Similarly the combination of the pyramid and the prism is a sample of an advanced stage in the cultural evolution of man. Or, take the old fashioned teapot with its priapically curved spout for example. For all its obviously phallic combination, it is not the product of a primitive culture. The primary geometric form, on the other hand, as a cultural matrix existed long before any such combination was even thought of. Furthermore, the primary geometric forms, like our own concepts of God, are largely androgynous, with no accent on sex. Thus, the Hebrew ashera (cylinder) may well have represented at one and the same time both Yahveh and the Phoenician Love Goddess Ashtoreth.<sup>14</sup>

We know of no culture whose matrix is a phallus. We cannot even say with any degree of certainty that phallic worship was

of cultural proportions. Phallicism is simply a creative aspect of God through reproduction. This phase of worship is consequently of secondary order and, relatively speaking, a late comer on the religious scene. Geometric forms in phallicism occur in combination, a cultural sophistication found only at a later evolutionary stage of man. Phallic worship has contributed little or nothing to the evolution of a cultural matrix.



## CHAPTER 12

### *Domestic Animals*

We may define our domesticated animals as universally esteemed sacrificial animals. By this we mean, animals that were universally regarded as an appropriate offering to a cultural God. This excludes local, isolated practices where most any animal may be offered to some little known fetish. The differentiation between "universal" and "local" is essential and fundamental. Thus, in Egypt, it is said, there were many Gods: crocodiles, monkeys, and what not. In reality, however, there were only two, namely, Osiris and Ra. They alone were of the magnitude of cultural Gods. Therefore any other Egyptian deity of cultural proportions, such as Horus and Hathor, had to belong to one or the other of the two heavenly families. And in such a cultural family of Gods neither the monkey nor the crocodile has any place whatsoever. We might reiterate once more that any cultural deity must be universal—an indispensable attribute which neither the monkey nor the crocodile possesses.

The universal attributes of a cultural God must be matched by those of the sacrificial animal. And, as a matter of fact, so far our investigation has revealed that only our domesticated animals meet this requirement. All the ancient cultures prefer the domesticated animals for a sacrificial offering.<sup>1</sup> Some cultures used all of them for this purpose, while others, though

using nearly all of them, showed certain preferences. Thus, the Vedas preferred the horse; the Indo-Germans used nearly all, but especially, horses, sheep, pigs, and oxen; Greeks used all, including pigs, goats, and cocks, and similarly the Romans. The Chinese used, very likely all, but in particular, oxen, calves, sheep, and pigs, and, most certainly also the barnyard fowl. In the Semitic Near East, the pig is excluded from the sacrificial category of animals. The Jews barred also dogs, asses, camels, and wild life. The Phoenician sacrificial tables of Marseilles and Carthage specify the following acceptable list: steers, calves, sheep, she-goats, lambs, he-goats, fawns, fowl (tame and wild), and stags. Though the Egyptians, like the Semitic peoples, considered the pig unclean and abstained from eating pork, they offered it as a sacrifice to Osiris once a year.

Although we now generally accept the idea of sacrifice as some highly prized offering of one sort or other to a God, the original concept, from which this idea evolved, was somewhat different. It meant actually the killing of the God himself and eating his flesh and drinking his blood, so the sacrificer, that is, the communicant, might partake of the qualities of the God. With God literally within him, the worshipper could do no wrong and surely he could not die. This is one more illustration of how man in his spiritual evolution conceived of his God as an instrument or medium for conquering death. Thus we see that originally God himself was the sacrificial victim. But, being immortal, he no doubt was not any worse for the sacrificial ordeal. At the winter solstice in December, the Aztec worshippers regularly killed their God Huitzilopochtli and ate him sacramentally.<sup>2</sup> Yahveh forbade the Hebrews this practice.<sup>3</sup> The sacrificer or communicant was forbidden to "eat" the blood of the victim. Instead, the priest was ordered to sprinkle it on the altar. The blood was to be consumed by the sacred flames. Thus, symbolically at any rate, the practice of "eating" the victim's blood was retained. In Christianity, at the eucharistic sacrifice,

the communicant actually partakes of the body and blood of Christ through the miracle known as transubstantiation.

We do not claim that all the domestic animals have been at one time or other exclusive, cultural matrices, but we do maintain that they all, in various degrees, have been, and occasionally still are, deities of cultural proportions. They alone of all animals possess the attributes of all cultural Gods. Man guided by his inner directive singled them out for religious worship. Following his photoplasmic archetypes, his course to worship and culture was predetermined. He could not act otherwise. These animal archetypes, however, are not as basic nor as old as the geometric archetypes. It was by virtue of the geometric rather than animal form that man has been differentiated from animals.

Some theological authorities claim that animal worship is as old as religion itself. With this viewpoint, however, we necessarily must differ. Man manifested his religious awakening long before he worshipped any animals. He did not lift himself out of a state of nature to one of culture by his boot-straps, so to speak. It was by virtue of the geometric directive alone that man singled out certain geometric forms in nature for divine worship.

The animal world, with its infinite variety of form, would seem to complicate the task of selection beyond measure. Most of these forms, as a rule, are local in character, and subject to change and extinction, like the proverbial dodo. Many of them, in fact, an infinite number of them, are microscopic of size and otherwise too small to catch the human eye. And again, others may lie buried deep in rivers, lakes, and oceans, or are otherwise hidden away and out of sight. Guided in his choice by the inner directive of animal archetypes, man singled out certain forms for religious worship. And the qualities of the animal he singled out for such a worship are necessarily the attributes of a divinity, namely: eternity, universality, and stability. In other words, an animal so selected had to be static of form and widely

distributed over the parts of the world inhabited by man. It goes without saying that only a few animals could answer these qualifications and man's religious needs. Those who did qualify became the ancestors of our domesticated animals.

In the Altamira cave drawings man already had singled out horses and certain species of cattle, such as cows and goats. But to what purpose? Some people think that they are decorative drawings by a caveman idling away his long winter hours. In other words, the cave artist is supposed to be something of an Oscar Wilde practicing his art for art's sake. Observation and history, however, prove otherwise. Primitive people practice art as a religious necessity only, which may or may not answer their immediate material needs. It is however true that in an old civilization, though be it a primitive one according to our way of thinking, art may exist for decorative purposes also, as a bronze figurine of a nautch girl exhumed at Mohenjo-Daro clearly shows. And this particular civilization of the Indus Valley dates back to 4,000 B.C. Now, what degree of civilization could a people have reached who still were living in caves?

The excellent wall paintings of horses in the Altamira picture gallery clearly show how some of the ancestors of our domesticated animals had already been selected in the Palaeolithic Epoch. Judging by the naturalness and vigor of some of these paintings, the horse indeed must have been a popular deity of cultural magnitude. It appears in rock engravings<sup>4</sup> and in bone and ivory<sup>5</sup> carvings on magic wands and throwing darts. "The sacrificer hunts Indra (God of heaven and rain) like game, and holds him fast as the fowler does the bird," goes a Vedic proverb. The Vedas certainly "hunted" and "held fast" the horse. It took a whole year of preparation for its sacrificial ritual ordered by the edict of the priest-king to provide the Gods of light, i.e. sun, with another steed for their heavenly yoke.<sup>6</sup> The ceremony was of a cultural magnitude in which the entire nation participated. In the Zenda Avesta the horse is mentioned



as being sacred to the Sun God Mithra. On an ancient Carthaginian coin is engraved the head of a horse along with the winged disc and the hooded cobra.<sup>7</sup> Although the horse is not mentioned in the Decalogue, we read in the Bible that Josiah, the king of Judah, in his sweeping reforms, did away with the horses dedicated to the Sun and "burned the chariots of the sun with fire."<sup>8</sup> In ancient Greece, names containing the word "hippos," as in Lysippos, Philippos, Xanthippos, Hipparchos, Hippolitos, are all indicative of the widespread popularity of the horse. During the geometric period (925-625 B.C.), vase paintings show horses without fetlock, and bronzes show them without eye sockets.<sup>9</sup> Some of Greece's best talents were famous for their animal sculptures: Calamis for his horses, Nikias for his dogs, and the great Myron (cir. 480 B.C.) was celebrated far and wide by poets and lesser folk for his cow and some less known dog portraits.<sup>10</sup> That this popularity stems largely from religious worship may become evident from a few highly significant instances. In Athens the horse was sacrificed once a year as the embodiment of the God Virbius.<sup>11</sup> It was customary to sacrifice white horses at the shrine in Syracuse (cir. 5 c. B.C.). Herodotus tells of sacred white horses in Xerxes' procession at his hasty departure from Sardis. In Rome, on the 15th of October, the right-hand horse of the victorious team in the chariot races on the Field of Mars, was dispatched with a spear as a sacrificial victim to Mars.<sup>12</sup> In our own day, in the great temples of Foochow and Canton, China, shrines are dedicated to two Gods of vengeance: the one buffalo-headed, the other horse-faced. The horse-faced human figure is also worshipped in Japan, especially in Osaka, but as a more benevolent deity foretelling the future.<sup>13</sup> The white horse is, or at least was, regarded as sacred in some parts of Japan.

Traces of horse worship are still detectable in our own Christian West. Near Brussels, there was a little church dedicated to Saint Guidon who, in that particular region, was highly revered

as the patron saint of horses in particular and of cattle in general.<sup>14</sup> The Monday after Easter, or the Monday after the Pentecost, a procession of horses, profusely decorated and richly festooned with the image of the saint, was led around the church.

The cow, the bull, and the calf have been so universally worshipped as Gods in all the ancient cultures that we need to touch only lightly upon the subject. As a matter of fact, their cult persists in our own times among certain Negro tribes along the upper reaches of the White Nile and in India. The Egyptian Venus, Hathor, was as a rule represented as a cow with a flowing mane. It is also an established fact that the early Phoenicians, like the Hindus, refrained from eating cow meat. Apis, the bull, was a solar deity of Egypt. He is often shown holding the sun disc between his horns. And so was Yahveh, like the Assyrian Sun God Marduk, represented by the winged bull.<sup>15</sup> The Hebrews repeatedly lapsed into calf worship, as in the time of King Jeroboam.<sup>16</sup> The rebellious Israelites time and again declared that the golden calf was their God who had brought them out of Egypt.<sup>17</sup> This idea was seemingly imported from Egypt. Furthermore, in direct contradiction of the Mosaic law, the Temple of Solomon was well stocked with all sorts of "graven images," from the winged bull of the Assyrians to the columns of the Phoenicians. The cherubim, and very likely Yahveh himself, were represented by the winged bull under whose gilded wings the priest approached the holy of holies. But the Temple was not the product of Jewish culture.<sup>18</sup> For such an elaborate structure the Jews had neither the training nor cultural antecedents. As a matter of fact, its design was Phoenician and it was constructed under the friendly auspices of the king of Tyre.<sup>19</sup> Although the Phoenicians themselves were a chameleon race of traders, living on the borrowed cultures of Egypt and Babylonia, still, since 1100 B.C. they were unexcelled as temple builders by any other Semitic nation.

Next to the bull, perhaps, the goat was the most popular

representation of an animal deity. It is frequently found in reindeer-horn carvings on magic wands or throwing sticks in the Magdalenian period of the Palaeolithic Epoch, as for instance in the cave of Mas d'Azil, France. Its excessive procreative powers, its lasciviousness, destined it to play a mischievous role, if not one of sexual perversion between man and animal. In the temple of Mendes, Egypt, a living goat was worshipped as a God. Here, according to Herodotus,<sup>20</sup> female worshippers came to receive the sacrament of sexual intercourse with the he-goat, and male worshippers with the she-goat. Diodorus Siculus, a later Greek historian, thinks that the goat was selected for divine worship for its almost inexhaustible sexual powers. This conclusion, however, we must view in the light of the basic principles underlying all form selection discussed repeatedly above. In more recent times goat-worship flourished in many parts of Africa, especially along the White Nile and the Gold Coast where the goat was regarded as one of the chief deities. In all such cases abstinence from goat meat is general.<sup>22</sup>

It would not be too far-fetched to conclude that from such perversions as exemplified at Mendes, the idea of semi-divine beings, half man half animal, originated. There is hardly a deity among the ancient peoples of the Near East that at one time or other was not represented as half man half beast. Such superhuman beings were the cherubim of the Hebrews, if not Yahveh himself, Baal and Ashtoreth of the Caananites and the Phoenicians, Marduk of the Assyrians, Hathor and Horus of the Egyptians, Satyrs and Centaurs of the Greeks, and so on. Here we might also mention the Egyptian cat cult at Bubastis. The Goddess Bastet is usually shown as a cat-headed deity with human limbs, and occasionally, save for human arms, also as cat-limbed and cat-tailed.<sup>23</sup> The dog-headed God Anubis is another illustration of how widespread this sort of worship was in Egypt. Even in Christianity we still conceive of angels as a human and animal combination—human body with bird's wings.

The high esteem in which the sheep, the lamb in particular, has been held as a sacrificial offering throughout the ancient world, leads us to believe that originally it was worshipped as a God of cultural magnitude. In the New Testament, Christ is often referred to as the Lamb of God. The animal most frequently mentioned by Christ in his parables is the sheep. In commemoration of the resurrection of Jesus Christ the Effigy of the lamb is still placed at Easter on the altar in the Roman Catholic Church. One of the great altarpieces in Christendom is "The Adoration of the Lamb," painted by the brothers Van Eyck at St. Bavon, Ghent. At St. Apollinare in Classe, Ravenna, the sheep is represented with the True Cross on early Christian sarcophagi.

Contrary to the common belief, the pig has as august an ancestry, dating back to the cave murals of the Palaeolithic Epoch, as the most aristocratic of our domesticated animals, such as the horse. Therefore it is somewhat difficult to explain its unpopularity among the Semitic cultures. Did they not eat it because of its much decried uncleanness, or, because of some taboo against killing it? Even the Greeks could not answer this question and wondered whether the Jews worshipped or abhorred the pig. The washing of one's clothes and body after coming into contact with a pig is not in itself a proof of abhorrence. The priest performs a similar act of purification after touching holy objects or after the eucharistic sacrament. We advance here the hypothesis that the pig owes its unpopularity among certain peoples to some catastrophe that befell them after eating trichinous pork. This theory is plausible since trichinosis is communicable and lethal to man, and the pig is its chief carrier. But, be this as it may, the fact remains that the pig, as a rule, was a highly esteemed sacrificial deity. In Greek mythology the youthful God Adonis, the favorite of Aphrodite, is killed by a boar. And, according to an infallible rule, any animal that can kill a God, itself must necessarily be a God.



All through Europe and Asia, dating back to the bronze age, the duck, the goose, and the swan, were regarded, because of their universal qualities and their seasonal migrations, as the sacred birds of the sun. And so in East Asia the cock, for its crowing before the dawn, was a sun deity and was worshipped as the messenger of the sun. Along the Amur river this sun bird is the most conspicuous form in decorative art. Among the Galician Jews of Poland a belief was prevalent up to a recent day that the sacrifice of some properly selected domestic animal was necessary in order to prevent a death in the family. On the Day of Atonement, Yom Kippur, a man would, with appropriate incantations, whirl a white cock around his head before killing it, and so would a woman a white hen.<sup>24</sup> It was also an ancient Hebrew custom, which they originally had adopted from the Parsees, to recite their prayers "at the crowing of the cock, the sacred messenger of the God of light."<sup>25</sup> In the Christian Holy Trinity, the Holy Ghost is conventionally represented by an animal form, namely the dove.<sup>26</sup> Whatever the religious antecedents of the swan may be, in the Leda relief (cir. 4 c. B.C.) it is portrayed as the aphrodisiacal bird and symbol of eroticism. Here the widespread Demeter cult culminates in the pathos of woman's lot. By nature she submits to the male to procreate, by culture—to satisfy his lust. In this act of submission, pain, dread, and the faint stirrings of an unholy pleasure within herself are reflected in her half yielding half resisting body. According to the legend, Zeus, in the guise of the swan, mates with the wife of Tyndareus, king of Sparta.<sup>27</sup>

We have no intention here to make a complete catalogue of all the domesticated animals that were universally selected for divine worship. But our discussion would not be complete without at least a brief mention of the snake. It has all the divine qualities of our domesticated animals: it is universal, changeless, and timeless. Were it not for the lethal qualities of certain varieties, it no doubt would have become one of our domestic

animals. Even so, certain people cultivate them as pets, as we would a cat. The snake has been worshipped as a God since time immemorial. Our Bible story begins with the snake. God ordered Moses to make a copper snake and place it on a pole as a symbol of life.<sup>28</sup> Later, however, Hezekiah, king of Israel, had it torn down because his people worshipped it as a God, called Nehushtan.<sup>29</sup> In the Book of Revelations the snake is invariably identified with the dragon and the Devil.<sup>30</sup> The hooded cobra is a universal symbol of sacred royalty. Primitive people still worship it as a God in many parts of the world. The author recalls with amazement a recent authentic moving picture reel<sup>31</sup> showing snake worship in its most startling, fantastic, and almost unbelievable form. The priestess was to kiss a deadly hooded cobra three times on its head. The absolute fearlessness of the slender priestess as she went forward to meet the charging cobra was hypnotic and beyond description. With the listless movement of a bird she side-stepped the first unrushing charges of the God, but she never retreated, never flinched. The cobra struck out time and time again with the mounting fury of an enraged deity until the white garments of the priestess were streaked and dripping with yellow venom. No sooner the cobra was ready to strike, the priestess would push it gently aside with her bare hand as one would push aside a piece of rope that was persistently rising towards one's face from the ground by some inexplicable magic. The cobra would rise to the full height of the priestess with its head only a few inches from that of hers, only to be lovingly kissed between its beady, hypnotic eyes. This unearthly struggle went on unabated till she had implanted a kiss three times on the sacred brow of the venomous deity. As soon as the sacrament was over, the snake-god withdrew to its rocky abode in the mountain, and its priestess returned to her jubilant people at the foot of the mountain.

Snake worship, or rather a form of it, still exists even among the so-called civilized people. Our southern hill sects catch and

baptize snakes, drape them over their necks and arms with only the paralyzing power of prayer for protection. Before snake handling, the "brethren" usually sing, pray, play guitars, cymbals, and tambourines. Occasionally bites and mortalities are the reward for their holy troubles.

An ancient remnant of snake worship is the caduceus, the insignia of the medical profession and a widely advertised Symbol of Life. It consists of a staff entwined by two coiling snakes. Since it is also known as the magic wand of Hermes, it is surmounted by a pair of wings, the emblem of the swift messenger of the Gods. The origin of the serpent staff should, however, go beyond that of the Greek God. It may well go back even beyond the story of Moses. The Lord told Moses that any one bitten would live after looking upon the fiery serpent mounted on a pole.<sup>32</sup> It is, indeed, in this sense that we too call it the Symbol of Life.

In summarizing our remarks on the animal form as a cultural matrix, we conclude: The original stock, or nucleus, of the domesticated animals consisted of those animal forms that man by divine necessity had singled out for religious worship and sacrificial offering. These animals are universal, timeless, and changeless. For example, the goat betrays no particular locale, no particular period in time, no change other than some special breed. We recognize these attributes as those we are wont to ascribe to a deity. The domesticated animal form is, therefore, a rich cultural matrix imbued with aesthetic qualities. It is for this cultural quality that the artist so often selects the domestic rather than the wild animal for his canvas. A civilization, that fails to recognize the spiritual antecedents of the domestic animal and cultivates it only for the abattoir, is itself both culturally and spiritually headed for the charnel house.

## CHAPTER 13

### *Aesthetic Concepts in Theory and Practice*

An important corollary of our theory of form lies in the field of aesthetics. We have already had occasion to mention the true sources of such heretofore ethereal concepts as, intuition, sense of proportion, symmetry, or what the Germans call "Formsinn." They are nothing but the unsensed responses to the inner directive we have spoken of above. In turn, this inner directive is the living biological archetype set up in a photoplasmic process. This creative process is the physical and spiritual evolution of the concept of God. It is also the story of man as a cultural being. In response to the promptings of the inner directive man often acts as if guided by some mysterious prescience. There is an element of recognition that antedates not only the birth of the individual but also that of the whole race. His photoplasmic memory carries him back beyond the birth of articulate speech, beyond the discovery of fire, or the invention of weapons. There is a distant longing for a home he knows not. He experiences the awful dread of the silence of the forest, and feels an exhilaration and exaltation of the spirit upon reaching the summit of a mountain. He responds to the moods and forms of nature in a way he knows not why.

This photoplasmic memory manifests itself as a kind of feeling. In some this feeling is intense and dynamic that requires little or no outside stimulation to translate it into action. In



Goethe small, everyday happenings were sufficient to compose, to arrange, to release these "memories" into pictures of incomparable beauty. It was the same with Voltaire. He required very little to bring him into action. His "memory" pictures were ripe and ready to be released. Goethe regarded him as the flower of French culture into whose blossoming the whole nation had labored incessantly for centuries. We shall go further than that and say, the whole mankind had labored incessantly for many millennia to produce a Shakespeare or a Molière. Plasma "memories" have a slow and wasteful adolescence. In most of us they remain dormant, inert, passive, that require intense and persistent outside stimulation to rouse them from their lethargic sleep. In mutant forms, however, such as Dürer and Beethoven, they burst forth into full bloom with seeming suddenness.

The popular notion of an artist, or a thinker, is as a man "endowed" with special brain cells by virtue of which he sets himself immediately to work and produces something from nothing. Oh yes, he inherits "something," but what this "something" is nobody seems to know. He pulls "beautiful melodies" or "deep thoughts" out of empty air like a sleight-of-hand artist would rabbits out of his hat. To give some basis, some "logical reason," some rational explanation for the sudden appearance of so bright a star in the sky, the biographer invariably goes back to the parent, and sometimes even to the grandparent, if not still further. But the results are very disappointing. Goethe's father was a nobody, his grandfather—a ladies' tailor, his son—what psychologists nowadays would call—a high grade moron.

Mediocrity—not genius—is hereditary.

People, as a rule, associate artists with feeling, thinkers with reason. The artist acts on "impulse," "inspiration," the philosopher—on contemplative thought. We, however, cannot find any valid ground for such an assumption. The fallacy arises from the excessive notion of localization, specialization, of the body

and mental functions. "Ideas," "thought patterns," too, like constants in nature, make negative imprints on the plasma cell. In fact, the word "idea" means "form" in Greek. These thought patterns, however, are faint and indistinct as compared with the geometric constants, and hence are more difficult to project on the screen. The philosopher must labor harder than the artist. The specialized brain cells act as a receiving set, a coordinating-distributive mechanism, and as a release switch. But the actual process of assimilation, as in the case of eating, takes place in the plasma cell. The thinker, like the artist, acts on "impulse," feeling, "inspiration," to project his thought patterns, or ideas on the screen. The thought patterns are already there—ready-made—they have been there for a long time scattered on the plasma film of life. He must group, arrange, coordinate; he must piece these thought fragments into a composition he feels a tremendous urge to release. Like in a jigsaw puzzle, the picture may take shape only after many pieces have been put into place. Again in other instances, the thinker—or artist for that matter—may have a "vision" of the whole before he even begins to assemble and match the parts that lie about him in partial disorder.

Thought patterns, sound patterns, color patterns, like constant forms, are registered on the plasma film of life. The thinker, no more than the artist, can create something out of nothing. They all must ultimately draw on the plasma stockpile for their materials to work with. It is a noteworthy thing that all the so-called geniuses, like Shakespeare, Goethe, Richard Wagner, prefer to recreate ancient legends and sagas of great antiquity. They invariably fall back on such ready-made mythologies as the Eddas, Nibelungen, or the Ur-Faust. And so do painters and sculptors show a similar preference for the legendary and the antique—all ready-made like a suit of clothes. Likewise the philosopher likes to deal with things far removed from immediate realities. He is more at home with the past than

he is with the present. Anatole France's Sylvestre Bonnard is much more familiar with some ancient criminal code of Rome, governing the crime of abduction, than he is with the French law. When confronted with difficult issues of the day, the philosopher—the thinker—is as helpless as the rest of us. His “thinking” brain simply does not work. Even Goethe, the philosopher, who was so sensitive, so susceptible, in his lyrics to his immediate environment, steers clear of the French Revolution of which he was a contemporary. Aside from the prophetic words he was coaxed into uttering at Valmy, he bypassed the whole Napoleonic era.

Thought patterns, like geometric constants, require time exposure. You simply cannot hurry the process. When it comes to reason, man is something like the crow in the legend. When God took upon himself to show the crow how to build a nest, the crow continuously interrupted him with, “I know, I know,” and so to this day the crow does not know how to build a decent nest. Our thought patterns are nowhere near as reliable as the constants in the graphic and the plastic arts. Geometric and animal constants were registered on the plasma cell long before there was such a thing as thought or reason. Ideas are just what they say they are—forms, and thought patterns must weave about them to create a composition. Sound patterns are also registered on the sound track of the plasma cell, showing the intensity with which life clings to that which is constant in a world of change.

We often say that we have an “impression.” We also say that the first impressions are more reliable than the subsequent ones that are tempered by contemplative thought. We usually dissociate reason from feeling. Feeling, in the “cold” light of reason, is often regarded as capricious and short-sighted. Such feeling is usually identified as emotion or passion. Human passions, wise people say, are to be held in leash by reason, or

otherwise they get us into trouble. These wise men observe that passions are blind, while reason is all-seeing.

Whatever the truth may be in such a hostile line-up of reason versus passion, we are inclined to take a different approach to this matter. Passions are older than reason. As such, passions speak with the wisdom of untold ages, whereas reason, at best, of untold generations. We are conceived in passion. In passion we survive. Reason is the voice of *a* man, passion is the voice of man. Reason is unique to a culture. It hardly ever transcends its bounds. Passions, on the other hand, are universal and common to all cultures. Reason is a short-sighted contemporary expedient, like the dropping of the atomic bomb on Hiroshima. It is provincial and cultural in scope. In passion one may commit murder, in reason one schemes and plans a wholesale slaughter. Reason seizes upon incidents conceived in passion. Reason enlarges upon them so as to justify an aggressive war. In passion one may strike or even murder an innocent person, in reason, on the other hand, one wipes out a whole city. The atomic bomb was conceived in reason, not passion, and the whole human species is in peril of extinction. Passions are to reason what nature is to culture. Nature is continuous, culture is periodic. The same is true of passion and reason.

Passions are no more bad than reason is always good. Cultures, like Christianity, are conceived in passion and destroyed in reason. A religion is born in passion, dogma—in reason. And religion is to dogma what culture is to civilization. The life of a civilization, largely guided by reason, is short as compared with the life of an animal species solely guided by brute passions. Yet brute passions have led many animal species to complete extinction, stagnation, or retrogression. Therefore, both, passion and reason, unless they in their turn are guided by the religious inner directive, only lead into a blind alley. Both, passions and reason can only be sublimated in religion.



Though it may run counter to the so-called behaviorist school of thought, it is generally accepted that one comes by his aesthetic feelings at birth. One inherits them not only from one's immediate line of descent but from the whole race. These feelings consist in the individual's reaction, either one of pleasure or displeasure, to the cultural forms of any one civilization of which he may or may not be a member or descendant. A sense of pleasure proceeds from the subconscious joy one experiences upon coming into contact with certain cultural essences or matrices that one would seem to recognize intuitively as one would recognize a returning friend. We will enjoy also meeting a stranger to the extent that there is an element of recognition. If the stranger has certain features, certain qualities, that remind us of someone we love, of someone we like, we will like him also. This is the fundamental source for aesthetic feeling. In all aesthetic appreciation there must be the element of recognition. If a certain piece of art lacks this element, we remain impassive or indifferent to it, we may even be repelled by it. But no two of us may have the same parents or the same friends, or, even if we did, we may not love them or admire them for the same things or qualities. How then can a piece of art contain some element or elements that we all can recognize and in recognizing them experience a sense of pleasure? If we shall like the same painting, then the painting must have a universal element of recognition. That universal element of recognition is the matrix. We have known it for a long time. Some say we have known it for two, three, or more million years.

This element is hinted at by George Eliot in "The Mill on the Floss," when she writes: "Our delight in the sunshine on the deep-bladed grass today might be no more than the faint perception of wearied souls, if it were not for the sunshine and grass of far-off years, which still live in us and transform our perception into love." Or, quoting John Dewey,<sup>1</sup> "Art celebrates with peculiar intensity the moments in which the past reenforces

the present and in which the future is a quickening of what now is."

A form is not an empty, lifeless shell, but rather it is the organic mode of the essence. Goethe, in his "Gott und Welt," writes:

"Natur hat weder Kern noch Schale,  
Alles ist sie mit einem Male."

After stealing across from Elba into France, Napoleon donned his grey overcoat, familiar to all his soldiers. They recognized him in this garb as their old leader and as the conqueror of Austerlitz and Wagram and marched triumphantly with him to Paris. A form can be effective only if its language is understood. It must be universal, changeless, and timeless. These properties are familiar to us all. We recognize them as those attributes we usually ascribe to a deity. And so they are. These forms, or matrices, may be defined as nature forms that man by divine necessity singled out for religious worship. And hence the identity.

In our story of the matrix we have also evolved the basis for aesthetic criticism. If our hypothesis of the matrix is correct, then no phase of man's cultural life can be fully understood without it. And the matrix, as we repeatedly have rehearsed, stems from religious origins. These religious antecedents constitute, what we have called, the inner directive.

While the human matrix reached its maturity in Greek culture, its many aspects have been and still are the individual acts of creative genius. A culture evolved about a matrix, a genius about one of its aspects. Examples of an aspect and its genius are many: The "nude" and Michelangelo, the "act" and Shakespeare, the "eternally feminine" and Goethe. In the human matrix Michelangelo reveals the aspect of superman: powerful, dynamic, creative. Adam is no God. He reaches out his hand to be kindled with the spark of life. Shakespeare casts his

characters in the heroic mold of Michelangelo. His aspect, however, is the range of passions. A Greek matrix would ill contain a Macbeth, a King Lear, or a Hamlet: it would break into a thousand pieces by the element of sheer surprise. "Das ewig Weibliche" aspect of a Mother Goddess takes on form in Goethe's "woman." Her love ennobles the earth. Where she is, the skies are bluer, the sun shines brighter, the meadows bring forth more flowers. Where she is, heaven cannot be far away. Man is ennobled by his love for her and is chastened by his sin. In the Faust tragedy, the line that separates the carnal from the spiritual, the selfish from the unselfish, the human from the divine, is so indistinct that Faust nearly beats the devil at his own bargain, by being redeemed by his pure love for Gretchen. These, and many other examples show the relationship between art and the matrix. No art can evolve in a vacuum, so to speak. It must have a core, a nucleus. With it, as from a center, the range of creative activity is limited only by the radius of one's genius.

Since the number of cultures need not have any limit, in more advanced cultures a combination may serve as a matrix. Such a combination, however, is evolved by the genius of a whole people. For example, the Cross is such a matrix—a combination of two like elements. Similarly other combinations, such as the Persian tomb towers, or the dagobas of Ceylon, may well have served as matrices of their respective cultures. While the geometric matrix differentiates man from animal, or man as a cultural being from one of nature, combination, on the other hand, differentiates man from man. Geometric forms unify, combinations diversify. The complexity of the matrix is reflected in its culture. According to this criterion, Egyptian culture was more uniform than our Western culture.

We shall now illustrate with some samples, chosen more or less at random, how the matrix is used in the fine art of painting. We judge the painting in the light of this criterion.

In the early Florentine and Siennese schools one will find a profusion of geometric forms associated, often indiscriminately, with holy persons and sacred places. Many of these forms are still in their natural state, as for instance the pyramid, the cone, and the cylinder. Thus, in Giotto's "The Flight into Egypt" and "The Deposition," the pyramidal rock with a cylindrical tree trunk growing from its dead side becomes a fixed background for the holy family. In "The Marys at the Tomb," Duccio also shows the pyramid in its natural state as a very effective background for the empty tomb. Verrocchio, of the later Florentine school, brings out in "The Baptism of Christ," two primary geometric forms in nature: the cylinder in the left foreground and the cone in the right background. The whole picture is divided into three vertical lines of interest: palm tree to the left, Christ in the center, and the conifers to the right. The central background is irregular and hence nondescript and unimpressive. The evil spirit, in the form of a dark bird, is seen fleeing from the Holy Ghost, the Dove of Light, and seeking refuge in the clump of evergreens.

Nearly all the madonna pictures are rich in geometric symbolism. Aside from the indispensable circle, the sphere or the hemisphere appear most frequently. With the important exception of the prim Crivelli madonnas, the exposed breast occurs with great regularity, especially among the lesser known artists, such as Jean Fouquet.

It is noteworthy, but in conformity with our form theory, that when Corot undertook to paint a "permanent" landscape, he invariably reverted to the geometric form. Consequently his "La Rochelle" is bare of all architectural adornments and rich in geometric matrices. Similarly Seurat achieved a character of "permanence" in "La Grande Jatte," largely through the medium of two primary geometric forms: the cylinder (tree trunks)<sup>2</sup> and the hemisphere (open umbrellas and emphasized breasts), and the human form. The dress, though here more or



less nondescript, always adds to the universal human form a touch of provincialism.

Paul Cézanne, perhaps of all French artists, knew best how to endow his landscapes and still life with the permanent and universal qualities of the geometric form. Thus, in his picture, "L'Estaque," a drab, nondescript village, the prism (chimneys) and the rectangle dominate the immediate foreground. As the eye sweeps across the smooth, inlaid-like water surface it alights without hesitation on a small, pyramidal mountaintop to the right. The eye may linger, but only for a moment, on the more prominent mountain ridge to the left, then move immediately and without fail to the pointed, though inconspicuous pyramidal peak.

In Böcklin's "Der Heilige Hain" the connection between the cylinder and tree worship can hardly be missed. In the depth of a dark grove of trees a fluted marble column is dimly discernible, while a procession of white-robed priests is approaching the sacrificial fire before which two communicants already are kneeling. The altar is erected, obviously enough, to the white birch trees that are seen standing in conspicuous contrast to a cluster of massive dark-leaved oaks. His choice of the relatively small and puny birch trees is not, however, a very felicitous one. The sacrificial smoke, curling and diffusing, as it does, through the lowhung branches, gives one the somewhat disconcerting impression of a small brush fire instead of the necessary imagery of solemnity and grandeur that goes with divine worship. In Böcklin's highly symbolical unicorn picture, "Der Schauer des Waldes," the closely massed cylindrical tree trunks seem to crowd upon the legendary beast like a horde of spectres that strike terror in his heart as he is about to reach a clearing. Perched upon his powerful shoulders and neck sits a maiden in white in solemn and peaceful repose, seemingly unaware and unconcerned of her surroundings and the terrifying experience of her mount as betrayed by his startled eye. The unicorn,

though presumably a mythological creature, is a rich, cultural matrix, universal in scope. The strong aesthetic qualities of the picture here proceed from the happy composition of the three fundamental forms, namely: human, animal, and geometric (tree trunks).

In the diptycha "Das Goldene Zeitalter" and "Die Lebensalter," Hans von Marées achieves a remarkable aesthetic effect largely through the composition of two forms: the human form and the tree trunk (cylinder). The human form here is portrayed as a form in nature, yet, at the same time, it is not a nature form. Man as a nature form would resemble an animal, say the ape, more than he would the human form in culture. As such he would lack the element of recognition, the aesthetic quality of culture. Marées' people are cultural matrices arranged in a state of nature. They are tree-like. Their arms are like branches. There is no motion within them. They are in a state of vegetation. Though the form is one of culture, the inner life is that of a plant. The nuances of culture are not discernible in their placid faces. Böcklin's brooding spirit does not dwell within them. No spirit dwells within them. Their vitality springs from the ground, from the eternal trees about them. Like trees they stand in groups, they know not each other. Each one is a world sufficient to himself.

In Constable's "The Haywain," the three categories of forms are present: the human form, the animal form, and the geometric forms. The cylindrical tree trunk is always one of the most forceful forms in any landscape. A patch of sky with its moving clouds and wealth of color, seems to expand into a hemispherical dome before the observer's eyes. Although in Gainsborough's "The Harvest Wagon" the three forms are also present, the lack of distinctness of the geometric forms makes the landscape somewhat weak. The irregular forms, whether tree or rock, and the emphasis on local dress, make the scene extremely provincial.

It is the artist's problem to bring into full play the cultural powers of his forms. The problem is then one of composition. It is in this respect that Corot fails to make the most of his forms in his "La Rochelle." Unlike Cézanne's "L'Estaque," the drabness, the sheer boredom of La Rochelle are hardly relieved either by the indifferently located pyramidal church tower or the cylinder, made here conspicuous for its material utility. Poussin's "Funeral of Phocion" is almost overwhelming for its wealth of form. For this very reason, and in spite of a good composition, no one particular form stands out in the full power and light of its cultural antecedents. In any other landscape, the secondary role assigned to the human form might be acceptable, but hardly in that of ancient Greece.

Our own artists, such as Grant Wood, Thomas Hart Benton, and John Steuart Curry, have endowed some of their local scenes of American life with the permanent qualities of universal art. For all their provincial settings they have achieved this effect largely through the medium of the cultural matrices that are common to all mankind. Curry's "Baptism in Kansas" reveals a wealth of geometric and human forms, all in good harmony with the occasion. Even the improvisation of the cylindrical water tank for baptismal purposes is not lacking in religious meaning. The fortuitous flight of the doves through the filtering rays of the sun, which, according to Curry, took place at the moment, lends cultural value to the ritual. Of animal forms, a couple of dogs and a scraggy-looking horse, are to be seen. Had the artist realized the cultural significance of the cow or the sheep in a religious setting of this sort, he undoubtedly would have included them in the picture. The setting, the dress, and the irregular forms are marks of provincialism. The three fundamental groups of matrices, on the other hand, are the indices of universality and permanence.

The Mother Goddess cult is deeply rooted in all cultures. The female nude is an outgrowth of this cult. She is the matrix of

love and fertility. Springtime is the season of love and conception. Grass sprouts and trees burst into blossom with the returning warmth of the sun. Persephone has returned from the nether world where Pluto had abducted her. Her mother, Demeter, would not permit vegetation to grow until her daughter was returned to her. Benton's Persephone may be far removed from the Palaeolithic prototypes of Willendorf and Brassempouy, but the symbolism has lost none of its original meaning. The farmer, shown in the picture, may pass for a Greek Satyr watching a sleeping beauty. In this modern setting, however, he resembles a Peeping-Tom in a nudist colony.

Although cultural matrices are universal, art, like religion, is not. Art seldom transcends cultural limitations. A universal art can flourish only when there is a universal culture. In other words, both in religion and art, man's concepts are largely provincial. While matrices are universal, combination, on the other hand, is cultural, i.e., provincial. Thus, the full meaning of the symbolism of the combination of the Cross and the human form can be understood only in the light of Christianity. We shall reiterate once more, that the matrix of any one particular culture can be fully appreciated in all its nuances only by its own culture. Thus human form, in its full cultural aspects, was known only to the ancient Greeks. In the world of form, in which the artist functions, the matrix is the key.

There is a school of thought that maintains that the existing forms have become shopworn and void of all spiritual vitality. These forms, therefore, must be infused with new life if they are to express a more vigorous spirituality. We dare say that most of the so-called modernists subscribe to this apparent need. This movement, symbolized by Picasso, is a reaction, a revolt, against a mid-Victorian mediocrity, a spiritually bankrupt bourgeois society. Petty rules, skin-deep niceties, are brushed aside as so much rubbish. Not only rules are done away with but all reserve and self-restraint. Man is to have no inhibition. The



artist is to put on his canvas feelings that are still red hot. What these feelings are, what they are about, whether or not the little flickering light is worth the candle, what social purpose they are to serve, these are all questions beside the point. To make his feelings run true to his intuition, the artist, ostensibly, has no one to please but himself. For bourgeois opinion, he has nothing but contempt. He scorns labels, "nouns," and preconceived arrangements. His *métier* calls for the "verb," the "function" of an inner "structure" or "system," the "subconscious." He brushes aside all surface appearances. Appearances are transitory, fleeting. They are only moods, phases, changing phenomena of the real thing—the essence. The essence is constant and universal. Particular forms are only the transitory expressions of an inner reality. It is this inner reality that the artist attempts to capture on his canvas.

Picasso, in his "Guernica," is not a mere observer, an onlooker or passerby at some tragic happening, but rather, he himself is in the catastrophe, he himself is the victim. The victim and the indifferent bystander may be looking at the same thing but they are not seeing the same thing. The last thing that you might remember of the car that ran you down might be nothing like the car you ever saw on the road or in the showroom. Your eye might have caught a glimpse of some part of the car or the driver that came nearer and nearer till it overwhelmed you like a doom and became a fixation on your mind.

It is a manifesto of protest rather than one of freedom. It is a cry of revolt. In a civilization where the intellect, the reason, dominates, the cry is to go back to one's intuition, the intuition of the child, or the pathological fixation of the insane. To act on impulse, feeling. To draw upon the seemingly inexhaustible source—the unconscious state of the dream world. As Sigmund Freud would put it, we are constantly on guard during our waking hours, lest the mask should fall off and reveal our true selves. So, let the mask fall off if it will. And once the mask is

removed one may find beneath the shallow, external pose a buffoon, an idiot, or even a monster. A rational person is one who wears a mask for the better part of his life; an irrational person, on the other hand, is one who does not wear a mask.

If we study carefully the trends and tendencies in modern art, we will discover a very curious and interesting fact. The very ethereal, the very elusive, branch of art, under the general name of non-objectivism, has become the handmaid to industry. The ethereal non-objectivist has become an industrial designer. The "inner reality" which the artist claims to be too elusive and subtle for the ordinary mortal to comprehend, appears as industrial buildings reared in cement, steel, and stone. The "inner reality" the artist claims to have captured on the canvas, cannot be distinguished from the factory façade or the linoleum pattern.

Of this industrial tendency in art, however, we do not speak with disparagement. Industry is in ascendance and rapidly approaching its zenith. Its range is becoming more and more inclusive. Any one hitching his wagon to this rising star will not be left on the ground. But let there be no mistake as to which is leading which. The tail does not wag the dog. It is industry that is definitely in the lead.

In the manifesto of freedom and protest a need is expressed for a more vigorous spirituality. This, however, it proposes to achieve by breaking off completely with our cultural past and by striking out afresh to new and unknown spiritual heights of which the artist alone is supposed to have a full view, and some favored few—only a glimpse. The artist, no longer encumbered with his cultural past, would be guided solely by his intuition along this newly discovered path. Yet intuition, to our best understanding, is the voice of our cultural experience. Though the artist of this school of thought has loudly proclaimed his independence of all established concepts of form and composition, in his quieter moments, however, he evidently did listen to what he calls his intuition. In fact, we know of no other school of

art that has made as extensive a use of the geometric form as has the so-called non-objectivist. While we don't question the wisdom of selecting the geometric form, we do however question the wisdom of omitting the two other categories of form, namely, animal and human, thereby circumscribing and limiting one's mode of expression. The virtuosity of the non-objectivist is definitely restricted within narrow limits.

What we have said about the meaning and symbolism of the fundamental forms, applies even more rigorously to the so-called surrealist school of thought. For here, indeed, the artist cannot afford to be vague about his forms as they emerge from the subconscious to the level of consciousness. In this process a certain amount of distortion of form may take place, as would a partially immersed pencil in a glass of water. Our memories, our fears, and our desires are not necessarily submerged and suppressed into chaos but rather into cultural patterns that possess the universal quality of recognition. As a matter of fact, Sigmund Freud's contribution in this field largely lies in his effort to identify some of these cultural patterns. In other words, not everything beneath the mask is chaos.

In the springtime of culture, man follows his directive with a sure and unerring step. He seldom needs to pause at crossroads for directions. But once the petrifying forces of civilization with all its complexities set in, man no longer is sure of himself. He begins to look for signposts along the road and ask every passerby for directions. The maze is too much for him. He no longer ventures alone. He travels in schools like fish. Like the atomic physicist or the tobacco auctioneer, the "modernistic" artist is a "group" specialist. Outside of his group only a few can understand him or have an aesthetic appreciation for his work. His mooted indifference to public criticism is nothing but a psychological defense weapon against an impending doom of futility. His repeated assurances that he paints

for his own spiritual pleasure and not for the "mob" is only a sham to cover his own defeat. What sort of spiritual pleasures can these be that he cannot share with others? Are they spiritual pleasures at all? A spiritual isolation, even from an ignorant "mob," may prove fatal to the artist like the scientist.



## CHAPTER 14

### *Some Observations on God's Creative Method*

I believe it was Napoleon who said, the Emperor knows no disease other than death. Death, however, is not exclusively an emperor's prerogative but rather a common ailment to which we all—the lesser folk—are heir. It is not cancer, it is not tuberculosis, but rather death which we fear. These symptoms register in our minds the rate with which death is approaching and we become alarmed. These symptoms, furthermore, show us the door by which death is seeking admittance into our house as we desperately try to throw up some sort of barricade to keep the intruder out. However, should the doctor say, it's indigestion or a cold, we immediately feel relieved—there's no immediate danger—it's such a distance away. That indigestion and the "common" cold may prove just as fatal, hardly enters our minds. All diseases are equally fatal in the long run. Even old age is fatal.

We laugh at the proverbial ostrich burying its head in the sand so as not to perceive its pursuer; yet we all do just that. Apropos this question, Tolstoy has an interesting anecdote to relate—an Indian legend. A man is running away from a wild beast. To escape it he jumps over the edge of a precipice and hangs on a branch of a shrub that grows there. The beast is above him, the precipice—below him, either way, a sure death. As frail as the shrub is, to make matters worse, white mice

appear and begin to gnaw at the precarious roots of the shrub. The man hangs on, though well he knows that the shrub, if not his own strength, sooner or later, will give way and he will fall to his death. But, lo and behold, bees deposit some sweet honey on the leaves of the shrub to which the man so desperately is clinging. The man forgets the beast above, the precipice below, and begins to lick the sweet honey deposited upon the leaves. That eventually he will fall to his death below, or be devoured by the wild beast above, does not, at least for the moment of his enjoyment, enter his mind. That is where Tolstoy stopped and refused to lick the honey off the leaves and contemplated suicide. God was having a bit of sadistic fun at the expense of Tolstoy and Tolstoy did not like it one little bit. If he was doomed to start with, why should God tempt him with honey to cling just so much longer to so precarious a hold on life?

We admit that we are not familiar with this Indian legend, except as told by Tolstoy; however, we shall venture a different interpretation. The man on the limb is not enticed with honey to amuse God, but rather to seek his own salvation. Man is not a puppet and God is no puppeteer. To the extent man is endowed at this early stage of his evolution with the God-essence, i.e., soul, he is a free agent to do as he wills for better or for worse. Whenever man gets into difficulties and implores God to step in, he is denying the divine gift within him and wants to become a puppet and expects God to be working at the wires. Unless man rises to the responsibilities which the divine gift of self-direction entails, God may cast him aside as dross—unsuitable for carrying out his purpose. The scientist does the same in his laboratory. When after a long experimentation he finds that the material he has been working with does not respond to his purpose, he throws it aside and looks around for a more suitable stuff.

Man is still at a stage of development where he must be

stimulated by material pleasures to work towards higher, spiritual objectives. The beast above him is none other than he himself, the precipice below him is the grave he digs for himself. The mark of the beast is still upon him. He still is a self-devouring animal. The greatest portion of that which he produces is earmarked for self-destruction. And man as of now, seems extremely pleased and proud to announce to the world at large that he at last has perfected, by means of his transcendental intelligence, a device by which he can completely wipe himself off the face of the earth. People stand in awe and admiration for this achievement of the intellect! Look! says a man of the street to another, in all the ill repute we held the intellect, it really has proved its worth! Tooth for a tooth, eye for an eye, man for a man, until some other species can start with a clean slate—*tabula rasa*, as did the insignificant mammals take over from the great and glorious dinosaurs at their extinction.

This earth of ours is God's own laboratory, or for that matter, the whole universe. Of the innumerable species on earth, some become extinct and others appear. The sculptor must certainly have the image in mind which he proceeds to liberate from the block of stone. Before a creation can be completed many chips must fall. We do not pretend to read God's plan of creation, but life itself is a very vivid, demonstrative lesson on the ABC's of God's creative method. The sower scatters seed with so lavish a hand for only a few of the seed will germinate and even less that will bear fruit. Goethe says that the whole French nation had labored for centuries to create a Voltaire!

If we were to go through a scientist's laboratory, we no doubt would be impressed by the seeming ease with which he calls into being all sorts of "miracles." With a wave of the hand—figuratively speaking of course—he changes coal into diamonds, zig-zags a lightning flash between two spheres, and, with the mere flick of his finger wipes out a whole city. Why, Mr. Scientist, you are a wonderful fellow! You can do most anything! So,

why not be a “good sport,” and, as a practical joke, if for no other reason—on my way out—stuff my pockets full of diamonds and change this piece of a lead pipe into gold, and, come to think, write out for me a prescription, or, better still, give me an injection that will cure me of all the ills that afflict me. But the scientist is a dour fellow who won’t be humored. He shows us politely to the door with the optimistic but false hope that he will see us never more.

So, as tourists will, we visit another laboratory to see what we can see. It’s God’s laboratory. The sun rises and sets—always on time—the full moon floats in the nightly sky with all the ease and buoyancy of a milk-weed in the summery air. Everything works smoothly, with great precision, regularity and orderliness. When night grows dark, the stars move into their assigned places to spell out the signs of the zodiac. Everything is rhythm and order. And so is our earth, always the same, never changing. The ground is solid, the landscape ageless, the weather fairly consistent. The seasons come and go; the trees and the flowers burst forth with leaves and blossoms, only to wither and die, and then to come to life once more. An endless, repetitious process. Our tourist guide—not God himself (God forbid)—but a scientist—who only recently had lost his job through no fault of his own—shows us around the place. And, as all tourist guides always will, he cries up the quality of the “natural laws,” which are as immutable as the laws of the Medes and the Persians. And indeed, we, the tourists, are greatly impressed.

And so we say, God, You who are almighty, omniscient, You who have created the universe, You, who, instead of a clock or a watch, have the sun to keep Your time, please restore my amputated leg, or, cure me of cancer. It surely is only a trivial matter for you to do these things. You, who created man and the earth, the stars, in fact the whole universe, can do this by the mere flick of Your finger. So, Lord, I beseech Thee, do this for



me. But God, like the scientist—from whose laboratory we just had been ejected—is not to be budged from his universal routine. He no doubt is omnipotent, omniscient, as we have just witnessed by his marvelous demonstrations, but he simply won't listen to our beseechings. This, no doubt, is a serious setback to our faith in God. But just the same, since we have no other choice, we return to our churches and intone in unison and harmony the glories of the Lord.

This is what the tourist sees and does. But, behind the scenes, as in a theater, it is a different story. The astronomer, as he peers into the sky, he discovers irregularities, disorderliness, collisions, explosions, novae appearing and disappearing without a trace. Likewise, as the scientist peers into the universe of the atom, he discovers similar, unpredictable collisions and irregularities of all sorts, just as in the astral universe. And, according to the latest reports, our earth, the so-called *terra firma*, is as stable as a ship in a hurricane. Whole continents are sinking, while the sea is rising. The whole earth "crust" is shifting and moving. As Professor Paige sums it up, "The only thing permanent about our earth is change."

The scientist of all people ought to appreciate God's method of creation which is not entirely dissimilar from his own. A creation does not take place by a word of fiat but rather by an evolutionary experimentation. The question is not so much of God's omnipotence and omniscience as of man's self-direction and the will and the power to create with which God has endowed him to make his own destiny upon this life-giving earth. And lest we forget and miss the whole point, God is not interested in manufacturing a puppet that has to be manipulated by wires but rather in a creative, self-directive, god-like being. However omnipotent and omniscient God may be, He cannot teach a puppet to be self-reliant and self-directive by continuously manipulating the wires, no more than you can teach a baby to walk by driving him round in his carriage. Sooner or

later the baby must learn to stand on his own feet if he is to walk at all. This is God's own method and man knows no other. When wars and disasters come upon us, we often beseech God: Why don't You stop all this and make an end to our sorrow? In other words, God should manipulate the wires so we can be puppets once more. But God is omnipotent, omniscient. He knows the hardships of creation, but He knows no failure. If one species fails, another will succeed, and succeed it must.

If we observe and study God's own method of creation, we become aware of the fact that death plays an important role in the evolution of the species. No sooner a mold is made for one or more castings, the mold is destroyed and thrown away. Evolution can take place only when the offspring differs from his parents. Only in such a differentiation lie the possibility and the hope of all progress.

The crux of the question is, what is the image that the sculptor wishes to create from a block of marble? A beast, a man, or a god? If it is man or beast, then, let us say, the job is accomplished and there let us rest our case. And yet, the sculptor keeps at it, day and night, hammering, chiseling away at the block of stone. Though we have no clear indication of the end-product, it seems that the sculptor has something else he wants to create, or how else would he keep perpetually at the task? Ah, we may say, the sculptor must have a god in mind whose image he wants to bring out from the marble. In other words, the image the sculptor sees in the block of stone is the image of himself—the creator. The creator wants to create another creator, just like himself. God creates a God, a self-portrait; he wants to see himself as in a mirror.

Now, all this is an over-simplified version of the act of creation. But, at the same time, it brings into focus the absurdity of this sort of an approach to the problem. The creation of man in the image of God is no creation at all but rather a reflection of himself as in a mirror. A reflection is not a creation no more

than is imitation. A mere reproduction is not a creation. A species that merely reproduces itself either retrogresses, remains static, or becomes extinct. In other words, in so far as such species are concerned, the act of creation has ceased. The creator has thrown them aside as unsuitable for his creative purpose. Thus, the microbe, the sandworm, the insect world in general, and the fish of the ocean, have remained stagnant for millions and millions of years without the slightest indication of any advancement in the evolutionary scale. And yet, they reproduce themselves at a tremendous rate! The question of course, is, why have they not been cast aside long before this, like the proverbial dodo and the plated stegosaurus?

Here again God's creative method is clearly in evidence. In order that the few—with the evolutionary potential—may survive, the failures, the rejected many, must serve merely as facilitating agents and furnish the wherewithal to those who hold out some promise. Bacteria, worms, insects, fish, all must serve, be it only as means to an end.

The idea of sacrifice is an integral part of the process, or method, of creation. All religions are familiar with the sacrament of sacrifice. Only through sacrifice man can rise from a state of nature to one of culture. The scientist at times sacrifices his own life to bring his experiment to a successful conclusion. A genius, very often sacrifices his own wellbeing, as well as that of his immediate family, in the interest of his creation. Napoleon sent millions of people to their death in order to break the last strangle-hold of a feudalistic, static, condition and to fulfill his own destiny as "revealed" to him by his "star." God sacrificed His own Son so man might live rather than die like many other species that God had cast aside. No creative act can take place without a sacrifice in one form or other. The creative energy must perpetually be replenished. To evolve a creative, self-directive, god-like being, immortal, eternal, the

whole universe may be at work supplying the energy needed. It is a pulsating universe, consuming and liberating energy. And so, according to this idea, the earth may well be the center point of the universe in this creative process.

Such an idea need not be as preposterous as it may appear at first. When we enter the atomic physicist's laboratory, we no doubt are impressed by the gigantic cyclotron, the whole complex set-up. And yet the object towards which this elaborate equipment, this Cyclopean machine, is directed is so infinitely small that it cannot be detected by the most powerful microscope. However marvelous the laboratory is, however complex and expensive the apparatus, still it's only a laboratory, merely a facilitating agent in the creative process: a mere means to an end. The universe is something like a hall of mirrors in which the images recede further and further into infinite space. If the astronomer had an "all-powerful" telescope, the ultimate object he would reach would be he himself: the image very gracefully would return to its starting point. God's magnitude is not to be measured by the magnitude of the stars but rather by the infinitesimal spark of life which is to evolve into a god-like being, self-directive, and like God—creative. Not the laboratory, not the equipment, but rather the end-product is what counts. The scientist, we are sorry to say, is more interested in the mechanics of the laboratory than he is in the end-product of God's own experiment.

Humanity is something like a sack of grain in a biologist's laboratory. If he succeeds in producing, out of the whole sack, one single, higher, a more desirable, mutation, he will consider the effort, the material he has spent, worth his while. History confirms this analogy. History has little or nothing to say about a whole lot of grain that was used in order to produce only a few successful mutations, such as an Alexander the Great, a Julius Caesar, or a Napoleon. The thousands, the millions, of



human beings that were sacrificed in order to produce these geniuses, are thought nothing of, in fact they are not even known or catalogued to be forgotten.

Napoleon was the child of the French Revolution, a revolution that was to set man free. But whom was the Revolution to liberate? The so-called "common" man, the run-of-the-mill, the man of the street? A Voltaire? But Voltaire was already free! Instead of the Revolution freeing him, he freed, or rather unleashed, the Revolution. So, the Revolution freed the common man so he now can live in the slums rather than in a hovel; so he now can work like a machine cog in a factory rather than till the soil of his land-rich lord. Oh yes, the common man now knows how to read. So, he reads the racing sheets, the number racket sheets, and the "movie" magazines. This is the common bill of fare of the "liberated" common man. Not much to choose from, as you can see, between his former servitude and his present independence. However, who is to deny that man has gained something, albeit in a small, limited way, in the freedom of his actions? At least he is better placed to seek his own salvation. And there is no question that more and more people have availed themselves of the opportunities that are at their disposal. The gain may be very small, but it is a gain nevertheless. It may be only the freedom to choose between a "movie star" magazine and a detective story, between a factory and a factory, but it is some freedom nevertheless. And that is all to the good.

Voltaire's liberated man distinguished himself by massacres, mob violences, and the guillotine. Napoleon, on the other hand, got hold of this "liberated" man and turned him into a disciplined instrument to carry out his own indomitable will, even if he had to slaughter a few millions of these common men in the process. And the world does not think any worse of Napoleon! In fact, he is generally acclaimed at the true emancipator of the Western man.

Humanity on the whole goes forward, if it goes at all, at an infinitely slow, almost imperceptible pace. The only time we can detect any movement forward at all, is when some mutant form, some genius, brightens up its path like a meteor flash in the dark sky. Then, and only then, humanity seems to move forward, loudly crying up the qualities of the wonders of progress.

Christ interceded with God on the behalf of man with the plea: Father forgive them for they know not what they are doing. In a court of law, ignorance of the law is no excuse for a crime. Christ, however, enters his plea on the basis of man's ignorance: he does not know what he is doing. Christ appealed to the multitudes: every man had a kingdom of heaven within him. Every man had a divine spark, a soul, within him that would guide him to eternal life. But, the mob howled for His death. Although Christ had a deep faith in the common man, nevertheless, He did not entrust him with His holy mission, but rather only to a chosen few of the spiritual magnitude of his disciples. Though the kingdom of God may be in every man, at his present stage of evolution, however, his salvation depends largely if not entirely upon the efforts and accomplishments of the enlightened few. Before Edison no one turned on the lights to illuminate his house with electricity. Before Churchill no one talked of the Iron Curtain. Before Einstein no one talked of the atomic bomb, or relativity for that matter. Always it had to be some individual who had to step out of the common herd and make the first move. Humanity as a whole, has created nothing, invented nothing, discovered nothing. We become aware of the new path only and only after a pioneer has blazed a trail for us. Without these guiding lights we would be lost like sheep without a shepherd. Our salvation rests with only those people who have sought and found the light.

## CHAPTER 15

### *Recapitulation and Conclusions*

In our treatise we have advanced certain observations about man and his habitat. We have limited our observations to the obvious, the evidential, and the least controversial. The average reader himself can verify our statements first-hand from personal observations. When we say that the most outstanding property of man is his religiousness, what source can we give? What profound authority need we cite? What confirmation do we need for the statement that man is not known without religion? With the possible exception of our plasma hypothesis, our conclusions are necessarily based on empirical data. The reliability of such an experiment is directly proportional to the frequency-duration of the data. In our argument this empirical frequency-duration approaches infinity rather than any finite number as a limit. In other words, we are dealing here with the longest laboratory experiment on record. It has been conducted under every imaginable condition. The conclusions we have reached, therefore, merit high reliability. Specific, isolated instances that may appear as exceptions must be constantly referred to the general hypotheses and interpreted within their wider framework. To stretch them beyond such a limit is to reach beyond our claims. Infallibility we do not claim, but a high degree of accuracy we do.

We have advanced the idea that there is a limited number of constants in nature that man by divine necessity singled out for religious worship and culture. In the course of his worship, man persistently acclaims that they are eternal, timeless, changeless, and universal. This in particular appears to be true of the geometric forms. The worship of the geometric form in nature differentiates man from animal. Man is not known without the geometric form. The status of man can be readily determined by the degree of the use to which he puts the geometric form. No man can exist as a man without putting some of the geometric forms to work as a machine. Only the more advanced civilizations, such as Christianity, put all the geometric forms to work, though they still retain some vestiges of their former divinity. Our aesthetic appreciation of the geometric form is proportional to the vestiges of this divinity that the geometric form may still possess. We can say with certainty that the Indian civilizations of the American continent were not very advanced, for the simple reason that they did not put all the geometric forms to work. The bricks of the edifice of any one civilization are the geometric forms. The fewer geometric forms a civilization employs, the poorer is the edifice. Only those forms go into the building of the edifice that have been selected by divine worship. Forms outside this process of selection are entirely unfamiliar to man. A form can emerge from a state of nature to one of culture only through divine worship. This is a creative process with which the animal is practically unfamiliar.

That form from which a culture is born and through and about which it evolves we identify as a matrix. A culture therefore takes its complexion from its matrix. A matrix is unique to a culture. The matrix is its God. Though the God dies with its culture, or rather the culture with its God, the matrix becomes one of the cultural bricks of which all future civilizations are built. Therefore, it is literally true that the cultural edifice of any one people consists of matrices inherited from other



cultures. Such matrices are the shells of dead cultural Gods. Therefore each succeeding culture can truthfully say that theirs is the only true "living" God. The bodies or shells of the other dead or departed Gods become machines and are put to work.

The geometric matrices permeate a culture throughout. Thus, architecture can only be defined adequately in terms of the geometric form. In fact, the geometric form is the architectural matrix. *We have defined architecture as the art or process of selecting, combining, and dressing geometric matrices.* In ancient ruins very little if anything at all of such dressings remains. What the archaeologist actually exhumes is the geometric matrices themselves, singly or in combination. To determine from such remains the degree of culture of a civilization, the archaeologist needs only to study the number, the use, and the combination of the matrices. Furthermore, by studying the extent to which the geometric form has been employed as a machine rather than as a God, it is possible to determine the degree of culture with precision. Such a criterion, however, is not always available. Since in ancient civilizations all monumental architectures are religious architectures, geometric forms are seldom found as machines. And, only monumental architecture leaves behind a footprint in the sands of time.

Geometric forms, primarily, differentiate man from animal, whereas cultured animal forms differentiate man from man. Differentiation is proportional to cultural sophistication. Man cultivated the geometric form long before the domestication of animals, and, as a culture form, man is not known apart from the domesticated animal. True enough, there still exist scattered remnants of human stragglers without the benefit of cultivated animals. They are laggards left behind by the cultural stream of evolution and therefore are of little or no cultural significance. We defined the domesticated animal as a universally acceptable sacrificial animal that man, at one time or other, had singled out for divine worship. And sacrifice originally

meant the killing and eating of the God. Vestiges of this original practice still persist in our own holy communion.

The cultivation of the domesticated animals is an infallible index of the degree of man's culture. Some writers claim that the Aztecs of Mexico and the Quechuas of the Inca Empire were as civilized as the western Europeans at that time. Such claims, as one can readily see, do not hold true. As we already have pointed out, the American Indian, though probably familiar with all the geometric forms in a religious way, used only a few of them as machines. This fact alone would place them a few notches below the Europeans. Now, in addition to that, the American Indian had hardly any domesticated animals of sacrificial merit. Whatever wild life forms he might have worshipped, these were of little or no cultural significance. They lack the necessary universality and stability of the sacrificial animal. All these considerations place the various Indian cultures way below that of Western Europe.

In differentiation from animal, man is conventionally identified by such characteristics as, articulate speech, reasoning faculties, clothing, the use of fire and weapons. However dear and indispensable such attributes may seem to a man in culture, they are definitely of secondary order. Man could well dispense with all these attributes and still be man in distinction from animal. But what he could not dispense with and still be man, is his religiousness. His religiousness alone is the primary and the only fundamental quality that differentiates him from the rest of animals. It may be one of degree only, but the difference is great and decisive. And, if it is only a matter of degree of religiousness, the difference is so great that man is widely thought of as a unique creation. This certainly could not be the case because of the hot meals he eats or the clothes he wears. Man uttered cries of sorcery and black magic long before he experienced the urge for swapping stories with his cronies around the evening fire. He wore animal skins on totemic occa-

sions for purposes other than warmth. He built sacred fires long before he experienced the need for a hot meal. He used the magic wand before he used weapons. Not material but divine necessity is the mother of invention. All material inventions or discoveries are of secondary order. The idea of the circle existed long before the potter's wheel. The animal had identically the same needs as the primitive man, yet they led it to no such discoveries or inventions. The urge, the drive of a religious necessity, is far more intense and persistent than that of a material need.

Some people wish to differentiate man from animal by virtue of his reasoning powers. Such a procedure, however, seems to us untenable and false. The inescapable conclusion we reach is that reasoning powers can only spring from man's religiousness. To think is to create. And man creates only by divine necessity. Speaking of the sepulture of the Children's Grotto, France, Lecomte du Noüy aptly puts it, "It is already the dawn of human thought, manifesting itself by a kind of revolt against death."<sup>1</sup> All great philosophers, such as Plato, Spinoza, and Kant, are intensely religious. And so are all great artists and scientists, such as, Michelangelo and Dante, Newton and Tycho Brahé.

We have defined God as an instrument for surviving death, an instrument for achieving immortality. This definition, no doubt, is very limited, and, most unsatisfactory to a systematic theologian of some particular culture. Yet fundamentally it is correct and adequate. It is a working definition rather than a hypothetical and an academic one. For it is precisely this definition that we have in mind when we speak or think of God. Besides the fact that God will safely guide us through the death door to life eternal, we are little concerned. Beyond that, all religions are extremely mute. All interest seems to disappear once we safely pass the death door into those heavenly joys. All we are told is that these joys proceed from the fact that we

are nearer to our God, or that we are led into the presence of God. What we will be like, what form we shall take, what these heavenly joys consist of, are all extremely vague and nebulous concepts in all religions. As a matter of fact, all religions systematically discourage any attempts at peeping beyond the curtain of death. At our present stage of evolution our interest is chiefly focused on the death door through which our God will safely guide us to eternal life, provided we are on good terms with him. Our concept of eternal life cannot exceed our concept of God. And we already have pointed out how inadequate, provincial, limited, our concept of God is. Only a few mutant godforms, such as Christ and Gandhi, have caught the full vision of God and the meaning of eternity. To that spiritual pinnacle the rest of humanity has still to evolve.

The goal of evolution is immortality. Evolution of life on this planet or anywhere else in the universe would be completely without a purpose or meaning without such a goal. All life is witness to this fact. Life seeks to conquer death. And the process through which this aim is attained is the evolution of the concept of God. Man's progress towards his goal is proportional to the evolution of his God-concept. The evolution of man and the evolution of the concept of God are therefore synonymous.

Ours is a self-devouring universe. Life feeds on life. Life lives on death. In the struggle for survival the ever-present question is, who is to devour whom? In order that some may live others must die. All life is born to die to make room for life born to live, seemingly an endless, repetitious process. Life is comparable to two snakes in the process of devouring each other until only their tails are visible. And now the intellectual is happy to announce that finally a process has been perfected by which even the tails can be made to disappear. That, we would say, is carrying this self-devouring process to its ultimate conclusion. If man is to attain his goal and attain immortality, he must work his way out of this morass of self-destruction. Ad-



vanced spiritual guides, like Christ, have shown us the way out: . . . love your neighbor . . . love your enemies . . . lay down your life . . . turn your other cheek . . . he who seeks to save his own life . . . But sadly, mankind is still in the snake-devouring act . . . eye for an eye, tooth for a tooth . . . And sadly, the intellect in his fledgling flight has not as yet risen much above this stage . . . surely a poor and an incapable guide to lead us out of this self-devouring process.

To explain how man came to evolve the concept of God, we have advanced the idea of plasma photography. If we admit that there is a goal in evolution, then it also must be true that there is a coordinating mechanism in the body that directs it towards that goal. This directive mechanism itself evolves in the course of evolution of the species. Those species in which this inner directive did not develop or function properly have perished. Only those species survive which possess the biological mechanism that directs them towards the goal, namely, immortality. The parable of the sower is never more true than of the evolution of the species. Many were born only to die. Or again quoting Lecomte du Noüy, "All the attempts which did not bring the goal nearer were forgotten or eliminated."<sup>2</sup>

In our plasmic theory we have advanced the idea of a biological mechanism of the inner directive. If we have compared it to the sensitive negative of the photographic apparatus, we do not entirely reason from analogy. Likewise we do not intend to imply that plasmic archetypes are identical or even similar to the images on the photographic film. What we do, however, maintain is that these archetypes are physiological life patterns produced by persistent and continuous light stimuli reflected from certain constants in nature and culture. The biologist is too apt to differentiate, localize, departmentalize all body functions, forgetting that originally, and still potentially, the individual plasma cell was capable of discharging all the vital body functions. The blind person often falls back on his original

plasmic sight. It is a proven fact that some persons perceive things invisible to the eye. Plasma photography went on long before there was an eye. As a matter of fact, the eye evolved from this sort of plasmic sight. The eye photographs with infinite precision and minute detail the external world about us. It records the grain of the floorboards, every crack, every minute speck on the wall without our knowing. We are aware only of an infinitesimal part of what the eye actually sees. We only see that which is relatively constant, that which the eye has registered on the retina cells for many millions of years. The optical lens needs only to convey a single flash of light to the retina and the image is immediately produced in its entirety of certain constants. We can even close our eyes and reproduce the image of these constants at will from "memory." But conscious memory is only a fleeting physiological pattern localized in the brain cells. Even so, such "memory" acts as an "inner directive" and guides us in our movements and actions. Now, a similar, only far more basic, physiological pattern exists in every plasma cell with varying distinctness and intensity. It has been registered there long before there was an eye. It is in these life patterns that the matrices of the geometric forms exist as unconscious "memories." To these geometric matrices we have also added certain animal forms and the human form, for these, next to the geometric forms, are the most stable. From such a category all amorphous bodies are excluded. If such bodies are recorded at all, there is practically no trace of their existence, either as conscious or unconscious memory patterns. Amorphous bodies are thrown off and left behind as dross along the banks of the stream of evolution. God himself is conceived as a matrix, a form, which all creation tends to approach as a limit in order to achieve immortality. Ours is indeed a world of form in the eternal search for that which is changeless, timeless, and at rest.

## Notes

### NOTES FOR CHAPTER 2

1. "The Alphabet and the Ancient Calendar Signs."

### NOTES FOR CHAPTER 3

1. Charles R. Salit: "Constant Forms in the Flux of Change," *The Hibbert Journal*, April 1948.
2. London, 1924, p. XII.

### NOTES FOR CHAPTER 6

1. Charles R. Salit: "Constant Forms in the Flux of Change," *The Hibbert Journal*, April 1948.

### NOTES FOR CHAPTER 7

1. Thus the circle about the saint's head; the monstrance in the form of a sun disc; the censers and baptismal fonts made up of hexagonal or octagonal prisms; the processional cross consists of a cylinder and a cone surmounted by a cross; the church spire is but another name for the pyramid or the cone in church architecture, etc.
2. Exodus, 17:12.
3. Rev. William Wood Seymour: "The Cross in Tradition, History, and Art," New York and London, 1898. Also, George Willard Benson: "The Cross. Its History and Symbolism," Buffalo, New York.
4. *Ibid.*
5. Oscar Montelius "Mannus": "Das Sonnenrad und das Christliche Kreuz," *Zeitschrift für Vorgeschichte* von Prof. Just. Kossina, Band I, Heft 1-2, Würzburg, 1909.
6. A. Schwabes: "Latwju Dainas ka Materials Soziologiskai Estetikai," *Domas, Schurnals Literaturai, Sinatnei, un Mahkslai*, No. 3, 1914, Riga.
7. Adan Quiroga: "La Cruz en America," Buenos Aires, 1901; E. T. Hamy: "La Croix de Teotihuacan," Paris, 1882; G. Raynaud: "Les Nombres Sacrés et les Signes Cruciformes dans La Moyenne-Amérique Précolombienne," *Revue de l'Histoire des Religions*, Paris, 1901.

8. Canon J. A. MacCullough, D.D., Rector of S. Saviour's, Journal of The Transactions of the Victoria Institute, or Philosophical Society of Great Britain, Vol. I, London, 1918.

9. W. W. Seymour, *op. cit.*

## NOTES FOR CHAPTER 8

1. Rubaiyat of Omar Khayyam.

2. Felix Lajard: "Le Culte du Cypres Pyramidal," 1845.

3. The Jewish Encyclopedia, Vol. IV.

4. Frederick Starr: "Fujiyama. The Sacred Mountain of Japan," Chicago, 1924.

5. Starr, *op. cit.*

6. E. B. Havell: "The Hymalayas in Indian Art," London, 1924.

7. Havell, *op. cit.*, and also his "A Handbook of Indian Art."

8. William Edgar Geil: "The Sacred 5 of China," London, 1926.

9. G. F. Scott Elliot: "Prehistoric Man," London, 1920, p. 68.

10. Salit, The Hibbert Journal, *loc. cit.*

## NOTES FOR CHAPTER 9

1. Shrines or relic mounds, like those built by Emperor Asoka (264-227 B.C.).

2. It is hewn out of the living rock of the side of Mount Kailasa. It was begun in the eighth century A.D. and is one of the most remarkable temples of all times found anywhere on earth.

3. Charles R. Salit: "The Habitat of Geometric Forms," The Mathematics Teacher for November, 1942, New York. The Indian was, very likely familiar with forms like the hemisphere (igloo and the sweat lodge), the cone (tipi), the cylinder (column or post), the prism (pillar), the pyramid (sun symbol), and the circle (sun disc or hehotti).

4. Charles R. Salit: "The Geometric Form as an Architectural Matrix," The Mathematics Teacher for March 1947.

5. *Ibid.*

6. *Ibid.*

7. Salit, *op. et loc. cit.*

8. A. H. Longhurst: "The Influence of the Umbrella on Indian Architecture," The Journal of Indian Art and Industry, Vol. XVI, London, 1914.

9. Konrad Tibbeck: "Geschichte der Stadt Essen," Essen, 1915; Kurt Willhelm-Kästner: "Das Münster in Essen"; "Die Kunstdenkmäler der Stadt und des Kreises Essen," edited by Paul Clemen, Düsseldorf, 1893.

10. The New York Times, March 9, 1946. The synagogue was built by Peter Harrison, the architect of King's Chapel in Boston (1749-1754) and Christ Church in Cambridge (1761).



11. Salit, "Constant Forms in the Flux of Change," *op. cit.*
12. Nanimadhab Chaudhuri: "A Pre-Historic Tree Cult," *The Indian Historical Quarterly*, Dec. 1943.
13. Deuteronomy, 16:21; Judges, 6:25; 2 Kings, 13:6; 23:6, 7, 15.
14. Jewish Encyclopedia, Vol. II, see "asherah."
15. 2 Kings, ch. 23.
16. 2 Kings, ch. 3.
17. 1 Kings, 7:21; 2 Chronicles, 3:17, etc.
18. Phillips Endecott Osgood: "The Temple of Solomon," Chicago, 1910.
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20. T. L. Donaldson: "Architectura Numismatica," London, 1859; Phillips Endecott Osgood: "The Temple of Solomon," Chicago, 1910.
21. Recueil de Cones Funéraires, Mission Archéologique Française, Paris, 1892.
22. Benjamin Schwartz: "Votive Inscriptions from Lagash," Eames Babylonian Collection.
23. British Museum Guide to Babylonian and Assyrian Antiquities.
24. Farmers' Bulletins, Nos. 1801-1825, U.S. Department of Agriculture.
25. Earl Baldwin Smith: "Egyptian Architecture as Cultural Expression," New York, 1938; James Henry Breasted: "Dawn of Conscience," New York, 1933.
26. George A. Barton: "The Royal Inscriptions of Sumer and Akkad," New Haven, 1929.
27. Johannes Hertel: "Die Sonne und Mithra im Awesta," Leipzig, 1927.
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29. George Oakley Totten: "Maya Architecture," Washington, D. C.
30. Channing Arnold and Frederick J. Tabor Frost: "The American Egypt," New York, 1909.
31. Presumably the oldest Mayan pyramids.
32. Lotus cult is inextricably intertwined with mountain worship. Mount Kailasa is the stem and the Lake Manasarovara is both the flower and the seed vessel of the lotus, the throne of Brahama.
33. E. B. Havell: "The Ancient and Medieval Architecture of India. A Study of Indo-Aryan Civilization," London, 1915; W. Foy: "Indische Kultbauten als Symbole des Götterbergs," Festschrift, Leipzig, 1914.
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35. Paul Radin: "Indians of South America," New York, 1942.
36. Joseph Déchelette: "Le Culte du Soleil aux Temps Préhistoriques," *Revue Archéologique*, Janvier-Juin, 1909.
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39. G. W. Sheppard: "The Problem of Translating "God" into Chinese," *The Hibbert Journal*, Vol. XLIII, No. 1, October 1944.
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42. Sheppard, "The Problem of Translating 'God' into Chinese," *op. cit.*
43. The Jewish Encyclopedia, Vol. XI, see under "sun."
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45. Ezekiel, 8:16.
46. G. A. Wainwright: "The Sky Religion in Egypt," Cambridge, 1938.
47. James Henry Breasted: "Development of Religion and Thought in Ancient Egypt," New York, 1912.
48. *Ibid.*
49. Eva Matthews Sanford: "The Mediterranean World in Ancient Times," New York, 1938; William Edgar Geil: "The Sacred 5 of China," London, 1926.
50. *Ibid.* Also, James Baikie: "A History of Egypt," London, 1929.
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#### NOTES FOR CHAPTER 10

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2. The New York Herald Tribune, July 13, 1944.

#### NOTES FOR CHAPTER 11

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5. Prof. Dr. E. Dennert: "Das geistige Erwachen des Urmenschen," Weimar 1929, pp. 289 ff.
6. George Grant MacCurdy: "Human Origins," New York, 1924, Vol. I.
7. A. Wiedemann: "Menschenvergötterung in Alten Aegypten."
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10. Johann Joachim Winckelmann: "Geschichte der Kunst des Alterthums."
11. Frazer, *op. cit.*, Vol. II, p. 41.
12. *Ibid.*, p. 42.
13. Eastlake, "Equine Deities," pp. 260-285.
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16. 1 Kings, 12:28.
17. Deuteronomy, 9:16; Nehemiah, 9:18.
18. Phillips Endecott Osgood: "The Temple of Solomon," Chicago, 1910.
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20. George Ryley Scott: "Phallic Worship," 1941 (privately published).
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#### NOTES FOR CHAPTER 15

1. "Human Destiny," p. 105.
2. "Human Destiny," p. 74.





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